

# 2025

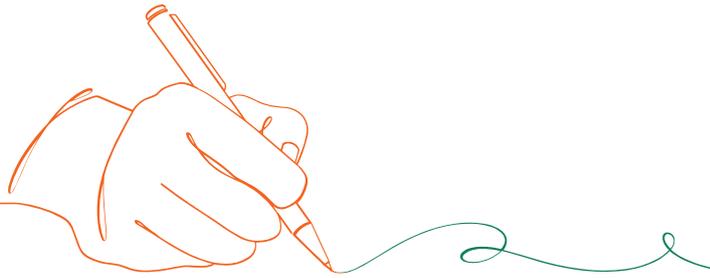
## DIAGNOSTIC REPORT

### BOOK 1



basic education  
Department:  
Basic Education  
REPUBLIC OF SOUTH AFRICA





Published by the Department of Basic Education  
222 Struben Street  
Private Bag X895, Pretoria, 0001  
Telephone: 012 357 3000 Fax: 012 323 0601  
ISBN No: 978-1-4315-4058-7  
© Department of Basic Education

# CONTENTS – PART 1

Foreword by the Minister		1
Chapter 1	Introduction	4
Chapter 2	Accounting	14
Chapter 3	Agricultural Sciences	42
Chapter 4	Business Studies	64
Chapter 5	Economics	96
Chapter 6	Geography	121
Chapter 7	History	164
Chapter 8	Life Sciences	186
Chapter 9	Mathematical Literacy	208
Chapter 10	Mathematics	227
Chapter 11	Physical Sciences	252

# CHAPTER 1

## INTRODUCTION

### MINISTER'S FOREWORD



It is my honour to present the 2025 National Senior Certificate (NSC) Diagnostic Report. The commendable performance of the Class of 2025 stands as a powerful testament to achievement, resilience and collective effort across our education system. This report captures the successful culmination of a rigorous academic journey undertaken by our learners, one made possible through their unwavering commitment and perseverance, as well as the steadfast support of teachers, families and communities throughout the country. Faced with a demanding and evolving educational landscape, the 2025 cohort rose with purpose and determination, reaffirming our belief in the transformative power of education and the promise it holds for shaping a brighter future for all.

In his State of the Nation Address on 6 February 2025, President Cyril Ramaphosa underscored the unwavering commitment of the Government of National Unity: “Central to our efforts to end poverty and to develop our economy is to provide decent, quality education to every young South African.” These words come alive in the remarkable achievements of the Class of 2025 in the National Senior Certificate (NSC) examinations, a triumph born from the dedication of teachers, learners, parents, and communities across the nation. Their collective perseverance is a vivid reminder of Malala Yousafzai’s words, “One child, one teacher, one book, and one pen can change the world”. The accomplishments of this year’s learners are not just a reflection of academic excellence, but a testament to our shared resolve to build a future of opportunity, equity, and prosperity.

As an education system we continuously evaluate our progress in terms of the social justice principles of access, redress, equity, quality, efficiency and inclusivity. In the 2025 examinations 87,98% of the candidates obtained the National Senior Certificate and can now access further education opportunities and enter the world of work. In terms of quality, 345 857 learners have obtained admission to Bachelor Studies. All 75 districts obtained a pass rate above 80%.

The Department of Basic Education (DBE) has continued to strengthen its commitment to inclusive education through sustained and targeted support for learners with disabilities and those who encounter barriers to learning. A significant milestone remains the consolidation of South African Sign Language Home Language (SASL HL) as a fully established offering in the National Senior Certificate (NSC), now entering its eighth year in Grade 12.

The National Senior Certificate examinations continue to serve as a steadfast symbol of academic integrity and public confidence, providing assurance that learner achievement is credible, comparable and internationally respected. This standing is reaffirmed by Umalusi, the Quality Assurance Council, through its approval of the 2025 NSC results following a rigorous and comprehensive verification of all examination and assessment processes.



This diagnostic report provides a comprehensive outline of the performance of the Class of 2025 in gateway subjects, home languages, high enrolment first additional languages and the technical subjects. Teachers are encouraged to use it as a teaching tool for the Class of 2026.

As we close the chapter of the Class of 2025 and look to the road ahead, we are reminded that the true legacy of the National Senior Certificate lies not only in certificates awarded, but in minds empowered and futures transformed. *Thuto e matla ho feta tshepe* – education is stronger than iron, stronger than any weapon – because it shapes conscience, unlocks possibility, and builds nations without destroying them. In the achievements of the Class of 2025, we see proof that when education is protected, nurtured and made accessible to all, it becomes South Africa’s most enduring force for justice, progress and shared prosperity.



**MS GWARUBE, MP**

**MINISTER OF BASIC EDUCATION**

**12 JANUARY 2026**



## 1.1 INTRODUCTION, SCOPE AND PURPOSE

A diagnostic analysis of learner performance constitutes a systematic and detailed evaluation designed to determine patterns of achievement and areas requiring improvement in learner outcomes. This approach extends beyond the analysis of examination results to include an examination of the contributory factors influencing performance. It enables the identification of areas in which learners demonstrate competence, as well as obstacles that may impede academic progression. The primary purpose of this analysis is to develop an informed understanding of the challenges identified during the marking of the October/November 2025 examinations.

The 2025 Diagnostic Report on Learner Performance draws on insights from earlier reports, notably those published between 2022 and 2024. It presents a comprehensive evaluation of learner achievement in high-enrolment subjects, the 12 official home languages, technology and technical subjects. The analysis contained in this report is intended to support teachers, subject advisors, curriculum developers and other educational stakeholders by offering evidence-based insights into prevailing strengths and areas of concern across these subject areas.

Consistent with previous editions, the report identifies subject-specific and language-specific areas of underperformance and proposes remedial actions to be implemented at school level in order to improve learner outcomes. The findings are informed by both qualitative and quantitative data sources. Qualitative evidence is drawn from reports compiled by chief markers, internal moderators and subject specialists, while quantitative data is obtained through the analysis of a nationally representative sample of 100 scripts per subject, per paper, across all provinces.

This National Diagnostic Report further provides a longitudinal comparison of learner performance over the preceding five years for each subject, alongside detailed analyses of learner responses to individual examination questions. Through the identification of recurring errors, misconceptions and instances of misinterpretation, the report offers targeted recommendations for improvement. Persistent patterns of weak responses in certain subjects point to ongoing challenges related to curriculum coverage, instructional approaches and, in some cases, gaps in educator subject knowledge.

Part One of the report focuses on monitoring progress in areas previously identified as problematic. It evaluates the extent to which corrective measures have yielded improvement and highlights domains where additional support remains necessary. While the report serves as a national reference, it is also intended for practical application at provincial, district and school levels, with the longer-term objective of embedding diagnostic analysis as a core component of teaching and learning practices throughout the education system.

## 1.2 METHODOLOGY

This diagnostic report presents a comprehensive analysis of learner performance in the National Senior Certificate examinations, with the purpose of identifying key trends, strengths and areas requiring improvement across subjects. Drawing on both qualitative and quantitative evidence, the report seeks to deepen understanding of learner achievement and the factors influencing examination outcomes. The findings are intended to support informed decision-making at national, provincial, district and school levels, and to guide the development of targeted interventions aimed at strengthening teaching and learning and improving overall learner attainment.

Each subject-specific diagnostic report opens with a comparative presentation of learner performance trends spanning a five-year period from 2021 to 2025. The analysis contained in the 2025 report is informed primarily by qualitative evaluations prepared by chief markers, internal moderators and subject specialists following the marking of the National Senior Certificate (NSC) examinations. In addition, quantitative evidence for the ten high-enrolment subjects and English First Additional Language was obtained through the systematic analysis of a random sample of 100 scripts from each province (a total of 900 scripts) per subject, per question paper, drawn from all provinces. The integration of qualitative and quantitative data enables the identification of subject-specific areas of underperformance and informs the formulation of targeted remedial actions to be implemented at school level to strengthen learner achievement.

The report provides a comprehensive question-by-question and subquestion analysis, organised into three key sections.

### **Section 1: Performance Trends (2021–2025)**

This section presents a longitudinal comparison of learner performance over the five-year period, with specific reference to the number of candidates who sat for the examinations, as well as the numbers and proportions of learners achieving 30 per cent and above, and 40 per cent and above. The data are displayed in tabular and graphical formats to support clear interpretation of performance patterns, including medium-term trends and year-on-year variations.

In addition, performance distribution curves are provided to illustrate the spread of learner results over the most recent three-year period. Shifts in the position of the 2025 curve relative to the preceding two years indicate changes in overall performance: a movement to the right reflects improvement, while a movement to the left signals a decline.

### **Section 2: Overview of Learner Performance**

This section offers a consolidated overview of learner performance in each question paper, identifying areas of relative strength and difficulty. It explores potential factors contributing to observed trends and provides a broad perspective on learner engagement with the assessed content, highlighting any systemic challenges that may have affected outcomes.

### **Section 3: Diagnostic Analysis of Questions**

This section comprises:

- Graphical illustrations of the average percentage scores achieved per question;
- A detailed examination of learner responses to individual questions, indicating levels of performance and explaining observed response patterns;
- An identification of recurring errors and misconceptions evident in learners' work; and
- Recommendations aimed at improving teaching and learning practices, content coverage and methodology, subject advisory support and the effective use of Learning and Teaching Support Materials (LTSM).



Reports compiled by internal moderators from all nine provinces for each subject and question paper have been synthesised, with the key findings reflected in this diagnostic report. It is advised that this report be used in conjunction with the November 2025 NSC question papers, as specific references are made to individual questions. When used in this manner, the report can assist educators in establishing a baseline for the 2026 Grade 12 cohort, informing differentiated teaching approaches, and guiding the planning and implementation of school-based assessment activities throughout the academic year.

### **1.3 SCOPE AND LIMITATIONS OF THE DIAGNOSTIC ANALYSIS**

While the 2025 National Diagnostic Report on Learner Performance offers important insights into learner achievement and examination outcomes, it is necessary to recognise the scope within which the analysis was conducted, as well as certain inherent limitations. These considerations should be taken into account when interpreting the findings and applying them to teaching, learning and support interventions.

#### **1.3.1 Intended Use of the Report**

This diagnostic report is not intended to function as a prescriptive guide for classroom practice. Rather, it serves as a reflective and analytical resource to support educators, subject advisors and curriculum planners in understanding learner performance patterns. The findings should be used in conjunction with other data sources, professional judgement and contextual knowledge to inform teaching strategies, curriculum implementation and learner support initiatives.

#### **1.3.2 Focus on Selected Subjects**

The analysis is limited to ten high-enrolment Grade 12 subjects, English First Additional Language, the 12 official home languages, and selected technology and technical subjects. These subjects provide a broad indication of national performance patterns; however, they do not represent the full range of subjects assessed in the NSC examinations. Diagnostic analyses for other subjects are produced separately through reports compiled during the marking process by provincial chief markers and internal moderators. Consequently, the findings presented here should be interpreted as subject-specific rather than comprehensive across the entire curriculum.

#### **1.3.3 Predominantly Qualitative Orientation**

The report is primarily diagnostic and qualitative in nature. Its central purpose is to provide an informed analysis of learner responses to identify common strengths, weaknesses, misconceptions and instructional challenges across subjects. Quantitative data are included mainly to illustrate performance trends over time and average achievement per question in the NSC examinations. The analysis does not extend to detailed psychometric evaluation, item-level test development or disaggregation by specific learner cohorts. As such, while the quantitative data support the diagnostic findings, they do not constitute an exhaustive statistical analysis, which falls beyond the intended scope of this report.

#### **1.3.4 National-level Perspective**

The diagnostic findings presented in this report reflect performance trends at a national level. While they highlight recurring areas of difficulty and common errors, these patterns may not be uniformly applicable across all provinces, districts or schools. Learner performance is influenced by contextual factors such as access to resources, educator expertise, teaching approaches and learner backgrounds, which can vary significantly across regions. The report should therefore be regarded as providing a broad national overview rather than a definitive account of challenges at local levels.

### 1.3.5 Need for District-level Analysis

In light of regional variation in learner performance, it is recommended that district subject specialists develop district-specific diagnostic reports. Such analyses would enable a more focused examination of local performance trends and challenges, supporting targeted interventions and professional development initiatives that are responsive to district-level needs.

### 1.3.6 Limited School-level Specificity

The report does not offer detailed diagnostic analyses at individual school level. Given the unique contexts in which schools operate, national trends may not fully reflect the specific strengths and challenges experienced by individual institutions. Schools are therefore encouraged to conduct their own diagnostic analyses based on learner performance data, enabling the design of targeted, context-specific strategies to improve teaching and learning.

### 1.3.7 Constraints Related to Data Representation

The quantitative data used in this report are derived from a random sample of examination scripts. While the sample size is sufficient to identify general trends, it may not fully capture the diversity of learner performance across all provinces and school contexts. Additionally, despite rigorous moderation processes, variations in marking practices and examination conditions may influence the interpretation of certain results.

## 1.4 OBSERVATIONS IN LEARNER PERFORMANCE FOR 2025

The 2025 diagnostic reports for the ten key subjects included in this publication (Part 1) indicate an improvement in pass rate at the 30 per cent level across most subjects, with the exception of Accounting, Agricultural Sciences and Mathematics. In these three subjects, a decline is also evident in the proportion of learners achieving 40 per cent and above.

In English First Additional Language, the pass rate decreased at both the 30 per cent and 40 per cent thresholds.

In the home languages (Part 2), improvements in pass rates were recorded in Afrikaans, English, Setswana and South African Sign Language. By contrast, marginal declines were observed in IsiNdebele, IsiXhosa, Sepedi and Tshivenda. Performance in IsiZulu, Sesotho, SiSwati and Xitsonga remained broadly consistent with that recorded in 2024.

A general trend of gradual improvement continues to be evident across the technology and technical subjects.

## 1.5 AREAS OF CONCERN AND RECOMMENDATIONS TO IMPROVE THE QUALITY OF TEACHING AND LEARNING

The marking of the NSC 2025 examinations revealed several recurring challenges that affected learner performance across various subjects. These challenges highlight areas where learners are struggling and require targeted interventions to improve their overall performance. Below are the major challenges observed, along with proposed solutions for addressing each one, including subject-specific examples.

### 1.1.1 Cryptic and Underdeveloped Candidate Responses

An emerging concern evident in diagnostic assessments is the tendency of candidates to provide responses that are cryptic, fragmented and insufficiently developed in relation to the marking guidelines. Rather than offering coherent, elaborated explanations or well-structured arguments, many candidates present brief statements, bullet-like points, or isolated facts that lack justification, depth and synthesis. This pattern suggests not only gaps in content mastery but also challenges in extended written communication and higher-order cognitive engagement as required by curriculum standards and assessment objectives.

One contributing factor to this phenomenon may be the pervasive influence of social media and the broader digital environment on learners' cognitive and communicative practices. Contemporary learners are increasingly immersed in platforms that privilege brevity, immediacy, and visual or abbreviated forms of communication, such as short-form videos, captions, emojis, and character-limited text (Carr, 2010; Rosen, Lim, Smith, & Smith, 2011). These modes of interaction may inadvertently condition candidates to prioritise speed and minimal expression over sustained reasoning and detailed explanation. Research suggests that frequent exposure to rapid, fragmented digital content can affect attention span, depth of processing, and the ability to engage in prolonged analytical tasks (Ophir, Nass, & Wagner, 2009).

Furthermore, the shift towards surface-level information consumption in the digital age may impact candidates' capacity to organise ideas logically and align responses with assessment criteria. Marking guidelines typically reward clarity, structure, justification and the integration of relevant concepts; however, candidates accustomed to informal digital communication may struggle to translate their understanding into academically rigorous written responses (Baron, 2008). This disconnect highlights the importance of explicitly teaching and reinforcing assessment literacy, extended writing skills and metacognitive awareness, ensuring that candidates understand not only what is being assessed but how to communicate their knowledge in a manner that meets established academic standards.

#### How is this addressed in teaching and learning?

To address the prevalence of cryptic and underdeveloped responses, teachers play a critical role in explicitly scaffolding the skills required for comprehensive, criterion-referenced answers. One effective strategy is the deliberate modelling of high-quality responses. By unpacking exemplar answers and mapping them directly to marking guidelines, teachers can make visible the level of detail, structure and justification expected in each question. This process supports learners in understanding how knowledge must be communicated and not merely recalled.

In addition, embedding structured writing frameworks within teaching practice can assist candidates in organising their responses. Approaches such as paragraph scaffolds, sentence starters and explicit instruction in academic language enable learners to move beyond brief statements towards more elaborated explanations. Research highlights that sustained practice in extended writing, coupled with formative feedback, improves both conceptual understanding and response quality (Graham & Perin, 2007).

Teachers are also encouraged to foster assessment literacy by regularly engaging learners with marking criteria and success descriptors. Activities, such as peer assessment, self-assessment and the annotation of sample responses, help learners internalise assessment expectations and recognise the limitations of overly concise or ambiguous answers. This is particularly important in counteracting habits of minimal expression reinforced by digital communication norms.

Finally, classroom practices that promote focused attention and deeper cognitive engagement, such as longer-form problem-solving tasks, reflective writing and discussion-based learning, may help mitigate the attentional fragmentation associated with digital media use. By intentionally creating spaces for sustained thinking and extended response, teachers can support candidates in developing the endurance and discipline required for comprehensive academic writing.

### **1.1.2 Reliance on past examination papers**

While past papers remain a valuable resource for familiarising learners with examination expectations, they should be used strategically and diagnostically, not as the sole or dominant mode of preparation.

One of the hallmarks of a well-constructed examination is its capacity to challenge learners beyond rote recall and predictable patterns. Examiners intentionally design questions that are innovative, authentic and aligned with real-world contexts, drawing on curriculum frameworks and current affairs to require meaningful engagement and deeper thinking from candidates. Research on assessment design emphasises that high-quality examinations should move beyond repetition of familiar tasks to reflect complex cognitive demands, including analysis, synthesis and problem-solving, which correspond to the highest levels of Bloom's taxonomy and prepare learners for future learning and life challenges (Aldosari, 2025; systematic reviews of authentic assessment design).

In contrast, a reliance on past examination papers, a strategy often adopted by learners and teachers, and sometimes reinforced through narrow examination preparation, can inadvertently cultivate a culture of predictability. When learners focus disproportionately on memorising past questions or formats, they are less likely to develop the critical thinking dispositions and adaptive reasoning skills required by novel questions. Studies in educational research have shown that traditional assessments rooted in repetition and recall fail to foster robust critical thinking, limiting learners' capacity to evaluate, infer and reflect flexibly in unfamiliar contexts.

When teaching and learning environments prioritise preparation for predictable item types, this can narrow learners' understanding of subject matter and diminish opportunities for learners to engage in sustained reasoning, authentic problem solving and originality of thought.

Addressing this challenge requires assessment practices that intentionally disrupt predictability and reward critical thinking, creativity and transfer of knowledge to new situations. By preparing learners for question papers that draw on contemporary issues or real-world scenarios, teachers can better ensure that learners deploy deep understanding rather than rehearsed responses.

### **1.1.3 Limited Conceptual Understanding and Critical Thinking Skills**

One effective approach is the deliberate use of unseen, context-based questions during teaching and assessment. By designing tasks that draw on contemporary issues, real-life scenarios or interdisciplinary contexts aligned with the curriculum, teachers can require learners to apply knowledge in novel ways. Research on authentic assessment demonstrates that such tasks promote deeper learning and improve learners' ability to reason, evaluate and problem-solve in unfamiliar situations (Darling-Hammond & Adamson, 2014; Villarroel et al., 2020).

Teachers can also strengthen critical thinking by explicitly teaching learners how to unpack instructional verbs and analyse question demands. Regular classroom practice that involves discussing why a particular response earns marks—rather than merely what the correct answer is—helps learners move beyond pattern recognition towards analytical engagement. This aligns with research showing that explicit instruction in metacognitive and reasoning strategies enhances learners' adaptability in assessment contexts (Schraw, 2018).



Furthermore, incorporating varied assessment formats—such as open-ended questions, problem-based tasks, short analytical writing and oral justification—can reduce predictability and discourage rote learning. Such variation signals to learners that understanding, reasoning and explanation are consistently valued, regardless of the surface structure of questions.

Ultimately, by modelling flexible thinking, emphasising conceptual connections and reducing dependence on repetitive past-paper drilling, teachers can better prepare learners to engage confidently with innovative examination questions. This approach not only aligns classroom practice with the intentions of high-quality assessment design, but also equips learners with transferable skills essential for lifelong learning.

#### **1.1.4 Lack of Basic Numeracy Skills**

During the marking of the October/November 2025 examinations, several candidates' responses revealed a notable lack of basic numeracy skills across a range of questions. Many candidates experienced difficulty with fundamental numerical operations, including addition, subtraction, multiplication and division, particularly when these skills were required within contextualised or multi-step problems. Similar challenges were evident in the manipulation of fractions, percentages and ratios. Research indicates that weaknesses in foundational numeracy significantly impede learners' ability to engage successfully with more complex mathematical reasoning tasks (Siegler et al., 2012).

In numerous cases, candidates appeared to understand the procedural demands of a question but were unable to produce accurate final answers due to computational errors. The absence of estimation skills and limited ability to evaluate the reasonableness of solutions resulted in learners accepting implausible answers without reflection. According to Kilpatrick, Swafford and Findell (2001), numerical fluency is a critical component of mathematical proficiency and underpins successful problem-solving across all content areas.

The excessive reliance on calculators for basic calculations further suggests that numeracy fluency has not been sufficiently consolidated. Studies have shown that over-dependence on calculators at early stages may hinder the development of number sense and mental computation skills (Rittle-Johnson & Schneider, 2015). These deficiencies limited candidates' ability to access higher-order questions, where accuracy in basic numerical processes is essential for progression.

#### **How can numeracy skills be strengthened in teaching and learning?**

In order to address the identified shortcomings in basic numeracy, the following research-informed strategies are recommended:

- (a) **Explicit and Continuous Teaching of Numeracy Fundamentals:** Foundational numeracy skills should be taught explicitly and reinforced continuously across grades. Evidence suggests that sustained exposure and practice are essential for achieving numerical fluency and long-term retention (Siegler et al., 2012).
- (b) **Embedding Numeracy Across Mathematical Topics:** Numeracy should be integrated across all areas of Mathematics rather than treated as a discrete component. This approach supports the transfer of skills and promotes conceptual coherence (National Council of Teachers of Mathematics, 2014).
- (c) **Balanced Use of Calculators:** While calculators have a place in Mathematics instruction, learners should first demonstrate competence in manual and mental calculation strategies. Research highlights the importance of developing mental arithmetic skills to support deeper mathematical understanding (Rittle-Johnson & Schneider, 2015).
- (d) **Promotion of Estimation and Self-checking Strategies:** Teachers should place greater emphasis on estimation and the evaluation of the reasonableness of answers. These practices enhance metacognitive awareness and reduce careless computational errors (Kilpatrick et al., 2001).



- (e) Early Diagnostic Assessment and Targeted Intervention: Regular diagnostic assessments should be used to identify gaps in numeracy skills at an early stage. Targeted support programmes have been shown to significantly improve learner outcomes when implemented timeously.

### 1.1.5 Poor Reading Comprehension Skills

An analysis of candidate responses indicates that poor reading comprehension skills remain a significant barrier to achievement. Many candidates struggled to interpret questions accurately, resulting in responses that were incomplete, irrelevant or misaligned with the demands of the task. In several instances, learners overlooked key words, misread instructions or failed to identify critical information embedded in longer or multi-step questions. This suggests that, although some learners may possess the required content knowledge, they are unable to access and apply it effectively due to limited comprehension of the question text.

Difficulties were particularly evident where questions required learners to infer meaning, integrate information from different parts of a text or interpret questions that combined written language with data presentations such as tables, graphs or scenarios. Research confirms that reading comprehension is not only a language skill but a foundational academic competency that influences performance across all subjects (Snow, 2010). Where candidates misinterpreted command words such as *explain*, *justify*, *compare* or *evaluate*, responses were frequently descriptive rather than analytical, indicating inadequate understanding of assessment verbs and their required cognitive demand.

Furthermore, the limited range of academic vocabulary displayed by some candidates negatively impacted their ability to engage with subject-specific terminology. Cain and Oakhill (2014) argue that comprehension is closely linked to vocabulary knowledge, inferencing ability and the capacity to monitor understanding while reading. These weaknesses contributed to candidates responding impulsively, without fully unpacking the question, which ultimately reduced the quality and relevance of their answers.

### What strategies can be implemented to improve reading comprehension skills in teaching and learning?

To strengthen reading comprehension skills, the following strategies are recommended:

- (a) Explicit Teaching of Comprehension Strategies: Learners should be taught how to identify key information, unpack questions and interpret command words. This includes modelling how to underline critical terms and restate questions in their own words.
- (b) Development of Academic Vocabulary: Regular exposure to subject-specific terms and academic language should be prioritised to support accurate interpretation of questions and texts.
- (c) Structured Reading Practice Across Subjects: Reading should be integrated across the curriculum, with routine opportunities for learners to engage with examination-style texts, instructions and data-based contexts.
- (d) Promoting Careful Reading and Self-monitoring: Learners should be encouraged to read slowly, re-read where necessary and check whether their answers align with what the question is asking.
- (e) Regular Diagnostic Interventions: Teachers should use short diagnostic tasks to identify comprehension weaknesses and implement focused support, particularly for learners who struggle to extract meaning from written information.



## 1.6 MEDIATING THE 2025 DIAGNOSTIC REPORT

The successful implementation of the recommendations outlined in this diagnostic report depends on effective communication and mediation at various levels of the education system. It is crucial that the report is disseminated and utilised from the provincial level down to individual schools, with a focus on active involvement from subject specialists, district officials and teachers.

### 1.7.1 Provincial Education Departments

This diagnostic report is intended for a broad audience, including teachers, learners and education officials. As such, it is imperative that the report is cascaded systematically from the provincial level to the district and school levels. This process will ensure that the findings and recommendations reach the relevant stakeholders, allowing for the identification of areas of improvement and the implementation of targeted interventions. Provincial education departments should take responsibility for ensuring that the diagnostic report is shared with all schools within their jurisdiction, enabling the entire education system to benefit from the insights provided.

### 1.6.2 Subject Advisors and District Officials

#### (a) Subject Advisors' Meetings and Workshops

Subject advisors play a key role in facilitating professional development and ensuring that the diagnostic report is effectively mediated. They should organise meetings or workshops where teachers can discuss the findings of the report and explore strategies for addressing the challenges identified. These sessions should focus on fostering collaboration among teachers, encouraging the sharing of best practices, and providing guidance on how to incorporate the recommendations into classroom teaching.

#### (b) Monitoring Teacher Improvement Plans

It is essential that subject advisors monitor the improvement plans of teachers, ensuring that the recommendations in the diagnostic report are incorporated. This will help teachers to make the necessary adjustments in their teaching approaches, thereby improving learners' performance. Monitoring should focus on specific actions and strategies that align with the identified areas for improvement.

#### (c) Curriculum Coverage Monitoring

District officials must ensure that the curriculum is being adequately covered in accordance with the Revised Annual Teaching Plan (ATP). This is particularly important to ensure that learners are fully prepared for the demands of the examinations. Incomplete or rushed curriculum coverage can leave critical gaps in learners' knowledge, hindering their ability to respond effectively to exam questions. Ensuring that all topics are adequately covered will provide learners with the necessary preparation to succeed in the NSC exams.

#### (d) Monitoring SBA Quality and Standard

The monitoring process should also focus on the quality of the school-based assessments (SBA). High-quality assessment tasks, aligned with the learning objectives and cognitive levels of the curriculum, are essential in preparing learners for the NSC examinations. District officials should ensure that SBA tasks are of a high standard, providing learners with the opportunity to develop and demonstrate their understanding of the content.

(e) **Enhancing Teaching Resources**

Subject advisors should direct teachers to relevant online resources, educational websites and digital tools that can enhance teaching and learning. These resources can provide teachers with access to updated content, innovative teaching strategies and interactive activities to engage learners, ensuring that learners receive the most up-to-date and effective instruction.

**1.6.3 Teachers**

(a) **Providing Resources for Self-Regulated Learning**

Teachers and schools must ensure that learners have access to adequate resources that enable self-regulated learning. This will empower learners to take ownership of their education, improving their ability to study independently. Teachers should guide learners in using textbooks, online resources, and supplementary materials to reinforce their understanding.

(b) **Creating Opportunities for Reflection, Analysis, and Evaluation**

Teachers should prepare learners for the demands of the NSC examinations by creating opportunities for them to reflect on, analyse and evaluate the content. This will foster deeper understanding and applied competence, helping learners develop critical thinking skills that are necessary for tackling complex exam questions.

(c) **Ensuring Comprehensive Curriculum Coverage**

Teachers must ensure that they cover the entire curriculum and include a full range of cognitive levels in both teaching and assessment strategies. Simple recall-based tasks will not adequately prepare learners for the higher-order thinking required in the NSC exams. Teachers should focus on creating learning opportunities that encourage analysis, evaluation, and application of knowledge to ensure that learners are fully equipped to tackle a range of question types in the examinations.



## References:

- Aldosari, MS. (2025). *From Recall to Resilience: Reforming Assessment Practices in Saudi Theory-Based Higher Education to Advance Vision 2030*. Sustainability, 17(21), 9415
- Baron, NS. (2008). *Always on: Language in an online and mobile world*. Oxford University Press.
- Carr, N. (2010). *The Shallows: What the Internet is Doing to Our Brains*. WW Norton & Company.
- Cain, K & Oakhill, J. (2014). *Reading Comprehension Development from Early Childhood to Adolescence*.
- Darling-Hammond, L & Adamson, F. (2014). *Beyond the Bubble Test: How Performance Assessments Support 21<sup>st</sup> Century Learning*. San Francisco, CA: Jossey-Bass.
- Graham, S & Perin, D. (2007). *Writing Next: Effective Strategies to Improve Writing of Adolescents in Middle and High Schools*. Alliance for Excellent Education.
- Kilpatrick, J, Swafford, J & Findell, B. (2001). *Adding it Up: Helping Children Learn Mathematics*. National Academy Press.
- Ophir, E, Nass, C & Wagner, AD. (2009). *Cognitive Control in Media Multitaskers*. *Proceedings of the National Academy of Sciences*, 106(37), 15583–15587.
- Rittle-Johnson, B & Schneider, M. (2015). *Developing conceptual and procedural knowledge of mathematics*. Oxford Handbook of Numerical Cognition.
- Rosen, LD, Lim, AF, Smith, J & Smith, J. (2011). *The distracted student: Does multitasking pose a problem for learning?* *Psychology of Popular Media Culture*, 1(S), 1–13.
- Siegler, RS, Duncan, GJ, Davis-Kean, PE, Duckworth, K, Claessens, A, Engel, M & Chen, M. (2012). *Early Predictors of High School Mathematics Achievement*. *Psychological Science*, 23(7), 691–697.
- Snow, CE. (2010). *Reading Comprehension: Reading for Learning*. International Encyclopaedia of Education (3<sup>rd</sup> ed.).
- Villarroel, V, Boud, D & Bloxham, S. (2020). *Assessment for Learning: The Role of Feedback and Authenticity in Fostering Higher-Order Thinking*. *Assessment & Evaluation in Higher Education*, 45(7), 1010–1025.



# CHAPTER 2

## ACCOUNTING

The following report should be read in conjunction with the Accounting Paper 1 and Paper 2 final examination papers for the NSC November 2025 examinations.

The Accounting examination focuses on two Accounting disciplines:

- Paper 1: Financial Reporting and Evaluation
- Paper 2: Managerial Accounting, Internal Auditing and Control

### 2.1 PERFORMANCE TRENDS (2021-2025)

The number of candidates who sat for the Accounting examination in 2025 increased by 2 849 compared to that of 2024.

The table below indicates stability in the pass rate at 30% (Level 2) and at 40% (Level 3), particularly over the past three years.

There was a decline in the pass rate this year. Candidates who passed at the 30% (Level 2) and above declined from 81,2% in 2024 to 77,9% in 2025. There was a corresponding decline in the pass rate at the 40% (Level 3) and above over the past two years from 56,9% to 54,3%.

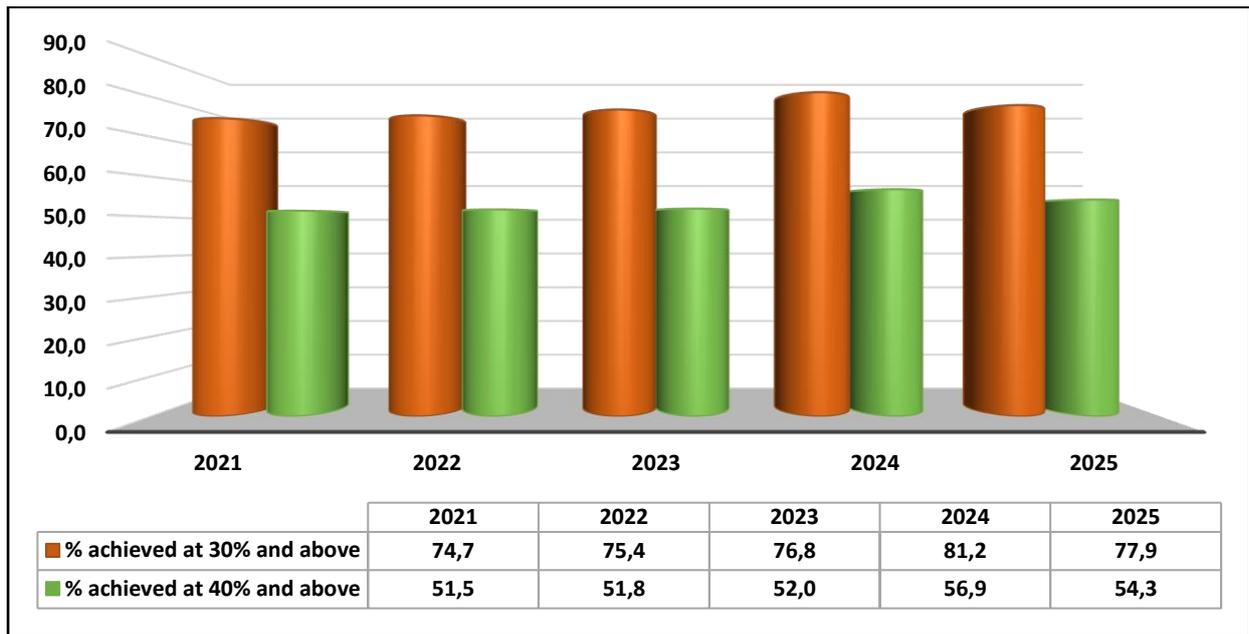
There was a marginal change in the percentage of distinctions over 80% (Level 7), which decreased from 6,3% in 2024 to 6,0% in 2025. The total number of distinctions has been decreasing for the past two years from 6 151 in 2024 to 6 029 in 2025.

Despite the decline in the pass rate and the number of distinctions, the results achieved by this cohort are commendable. Strategic intervention programmes at all levels (national, provincial, districts and schools) ensured that learners were adequately prepared. The diligence and perseverance of the above-average candidates also contributed to the overall performance.

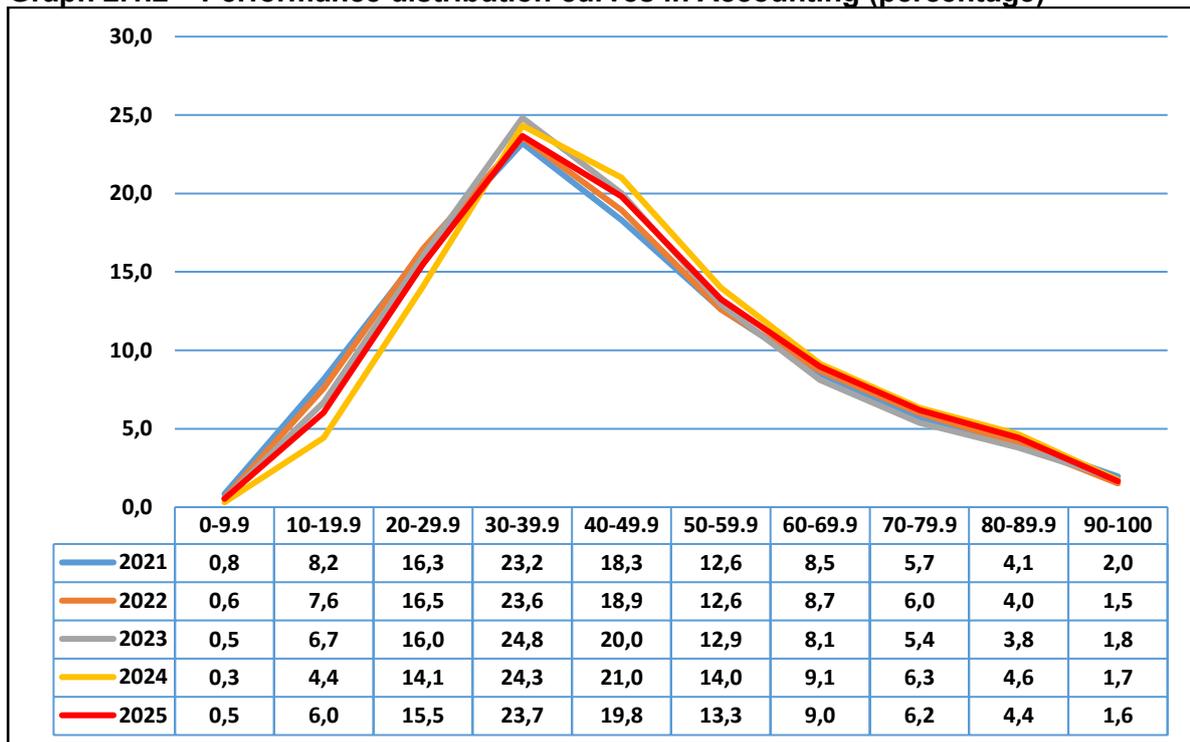
**Table 2.1.1 Overall achievement rates in Accounting**

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2021	105 894	79 093	74,7	54 518	51,5
2022	104 798	78 993	75,4	54 291	51,8
2023	100 974	77 572	76,8	52 509	52,0
2024	97 636	79 261	81,2	55 514	56,9
2025	100 485	78 326	77,9	54 550	54,3

**Graph 2.1.1 Overall achievement rates in Accounting (percentage)**



**Graph 2.1.2 Performance distribution curves in Accounting (percentage)**



## 2.2 OVERVIEW OF CANDIDATES' PERFORMANCE: PAPERS 1 AND 2

Accounting is a subject that requires insight and regular practice. The overall performance of the 2025 Accounting cohort did not improve when compared to the 2024 results. This outcome was largely influenced by candidate performance in Paper 1, where widespread difficulties were observed in questions requiring analysis, interpretation and evaluative judgement. Although evidence of content coverage and learner preparation was noted, these challenges restricted candidates' ability to access higher-order marks and negatively affected overall achievement levels.

Paper 1 assessed financial reporting and interpretative competencies, including preparation of financial statements, cash flow reporting, analysis and interpretation of financial information and corporate governance. Paper 2 focused on practical application of accounting principles, including reconciliations, inventories, cost accounting and budgeting. Performance in Paper 2 was comparatively stronger, reflecting reasonable procedural knowledge. In contrast, Paper 1 exposed persistent weaknesses in financial insight, critical evaluation and the ability to justify responses with appropriate evidence.

A noticeable achievement gap continues to exist between stronger and weaker candidates. This disparity may be influenced by uneven access to appropriate learning resources, differences in teaching and learning environments and inconsistent mastery of foundational knowledge from previous grades.

Findings from previous Accounting Diagnostic Reports indicate that several recurring problem areas continue to impact learner performance. These include limited ability to engage effectively with lower- and middle-order questions, difficulty in identifying and extracting relevant information from source information, weak mathematical and arithmetical competence, language-related comprehension barriers and an inability to provide concise, relevant explanations. The persistence of these issues highlights the need for strengthened formative assessment practices, continuous revision of prior-grade content and systematic development of examination-writing skills.

Teachers should cultivate the following basic strategies to equip candidates with the skills necessary to perform effectively in examinations:

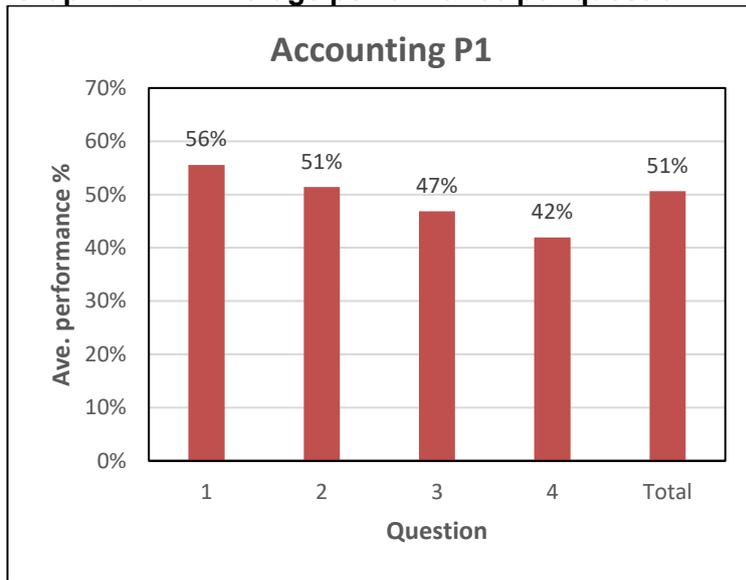
- **Strengthen conceptual understanding of accounting principles:** Teachers must ensure learners understand why transactions are recorded in a certain way, not just the steps.
- **Reinforce mastery of formats:** Provide regular practice on the layout of Financial Statements, Notes, Reconciliations and Budgeting. Correct use of formats leads to learners accumulating method marks.
- **Teach interpretation of scenarios:** Train learners to read scenarios carefully and identify key information.
- **Strengthen calculation and analytical skills:** A thorough understanding of the logic of arithmetical calculations and the correct use of signs, rands, cents and units.
- **Strengthen workings and presentation of calculations:** Train learners to show ALL workings clearly using labels. Marks are often awarded for method even when final answers differ.
- **Foster ethical reasoning and professional judgment:** Include discussions on ethics, internal controls, and corporate governance. Learners must be able to identify irregularities and justify ethical decisions in exam questions.
- **Provide targeted feedback based on learners' scripts:** Mark scripts thoroughly and give personalised feedback on recurring mistake.

Accounting remains a dynamic subject that requires continuous practice, financial awareness and understanding of current business trends. Teachers are encouraged to make purposeful use of available resources, including past examination papers, diagnostic feedback, revised Annual Teaching Plans (ATP), study guides and credible online learning platforms, to enhance learner preparedness.

### 2.3 DIAGNOSTIC QUESTION ANALYSIS OF PAPER 1

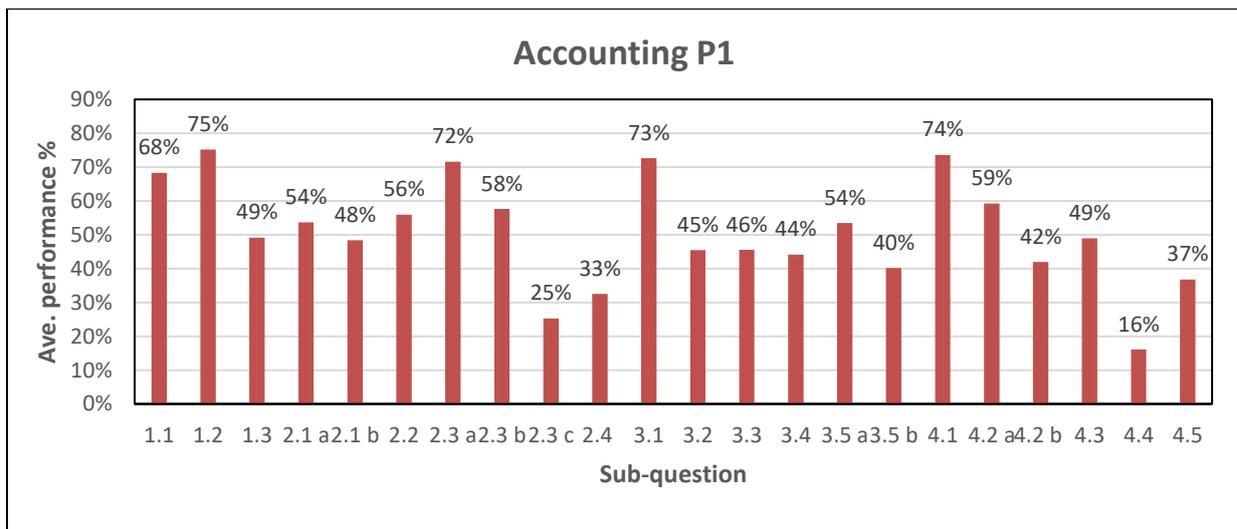
The graphs presented below are based on data from a random sample of candidates in the different provinces. They provide a clear picture of the general performance in each topic (Graph 2.3.1). This is useful in assessing the relative degrees of challenge of each question as experienced by candidates (Graph 2.3.2).

**Graph 2.3.1 Average performance per question in Paper 1**



Q	Topics
1	Company financial statements
2	Cash Flow Statement and financial indicators
3	Concepts and Interpretation of financial information
4	Corporate governance

**Graph 2.3.2 Average performance per subquestion in Paper 1**



Sub-Q	Topic	Sub-Q	Topic
1.1	Calculate: Value of closing stock	3.2	Operating efficiency, liquidity and shareholding
1.2	Ordinary share capital note	3.3	Returns, dividends pay-out policy and share price
1.3	Statement of Financial Position	3.4	Gearing
2.1(a)	Changes in receivables	3.5(a)	Audit report
2.1(b)	Changes in payables	3.5(b)	Decisions by shareholders on audit report
2.2	Cash Flow Statement	4.1	Social and ethics committee
2.3(a)	Calculate: Net asset value per share	4.2(a)	Report on unethical behaviour
2.3(b)	Calculate: Acid-test ratio	4.2(b)	Actions to prevent unethical behaviour
2.3(c)	Calculate: Dividends pay-out rate	4.3	Explanation of insolvent
2.4	Interpretation of financial data	4.4	Effect of rights issue on solvency
3.1	Concepts	4.5	Participation by shareholders on rights issue

A decline in performance was evident in Paper 1, particularly in questions relating to the Statement of Financial Position (SOFP) and the Analysis and Interpretation of Financial Information. This indicates that many candidates did not prepare thoroughly for these sections. While some candidates demonstrated insight and applied knowledge effectively, a significant number struggled to interpret financial data, identify relevant information, and provide meaningful explanations. These areas require strong financial understanding and regular practice with scenario-based questions, and the weaker performance suggests limited exposure to such tasks during preparation.

It was concerning that weak performance in the SOFP indicated that many candidates lacked a clear understanding of its format and proper structure. Candidates who were unfamiliar with the correct layout and classification of items were unable to present accurate figures resulting in lost marks. A sound understanding of the format of the financial statements is essential, as it forms the foundation for further analysis and interpretation of financial information. This emphasises the need for consistent practice in preparing financial statements by candidates.

## **2.4 ANALYSIS OF LEARNER PERFORMANCE IN EACH QUESTION IN PAPER 1**

### **QUESTION 1: COMPANY FINANCIAL STATEMENTS**

This question included a fair balance of low-, middle- and higher-order items. The question assessed candidates' understanding and application of key accounting concepts and procedures, including the correction of closing stock using the weighted-average method (Q1.1), the preparation of the ordinary share capital (OSC) note (Q1.2), and the SOFP (Q1.3). Varied levels of candidates' performances were noted.

A persistent concern is that weaker candidates exhibited limited understanding of changes in inventory valuation, the preparation of the OSC note, and the overall structure of the SOFP. Since accuracy was essential for earning marks on adjusted figures, even minor errors led to the loss of marks.

The majority of candidates demonstrated a sound understanding of the calculation of closing stock and the preparation of the OSC note, with many achieving satisfactory marks in these sections. However, performance declined significantly in the preparation of the SOFP, which carried the highest weighting (36 marks). While some candidates were able to secure marks by correctly applying the standard SOFP format and presenting information logically, many struggled with the layout and structure, resulting in an unnecessary loss of marks.

Candidates who were familiar with the SOFP format benefited from improved presentation and were able to accumulate marks through correct classification and accurate transfer of figures. In contrast, weaker candidates displayed difficulty in linking the figures from previous calculations in Q1.1 and Q1.2 to the SOFP, often misplacing items or omitting required components. This indicates gaps in understanding the accounting equation and how individual elements integrate into the final financial statement.

Only two of the required adjustments (worth 4 marks) had not appeared in previous examination papers, while the remaining adjustments had been tested before. Despite this, many candidates were unable to score marks on the adjustments that should have been familiar to them. It was anticipated that candidates would be able to apply this prior knowledge; however, overall performance suggested otherwise, with noticeable weaknesses in calculating specific adjustment amounts. The use of financial indicators to determine missing figures also posed challenges for several centres, despite some of the indicators having been based on content in prior grades.

Overall, while the question effectively differentiated between candidates with strong and weak accounting foundations, the results indicate a need for more intensive teaching and

reinforcement of adjustments, inventory valuation methods, and the integration of calculations into final financial statements.

### Common errors and misconceptions

- (a) Q1.1 (6 marks) required the value of the closing stock according to the weighted-average method. Overall performance was mixed. While some candidates demonstrated a sound understanding of this method, a notable number incorrectly calculated closing stock value using the specific identification method instead of the weighted-average method.

A small percentage of candidates did not apply the correct closing number of 820 units, despite this information being clearly provided. These candidates wrongly assumed that the closing units were relevant only to the inappropriate first-in-first-out (FIFO) valuation method and therefore omitted them in the recalculation.

Weaker candidates struggled with the sequencing of steps to calculate the average cost per unit before determining the final closing stock value. Some candidates incorrectly swapped the numerator and denominator or used only the numerator or denominator in their calculations, and consequently lost marks.

- (b) The OSC note (Q1.2; 8 marks) was not well answered by weaker candidates. Despite being provided with the closing number of shares and the closing ordinary share capital amount, some candidates experienced difficulty in calculating the average share price. They were unable to determine the missing figures and lost marks. This indicates a limited understanding of the different approaches that can be used to prepare the OSC note, even though similar adjustments have been assessed in past papers. There are candidates who did not follow the correct sequence of adjustments and relevant dates, instead inserting the number of shares arbitrarily. This suggests weaknesses in applying a logical, time-based approach when preparing the note, which adversely affected overall performance.
- (c) Candidates' performance in preparing the SOFP (Q 1.3; 36 marks) ranged from below average to above average. Stronger candidates indicated a high level of preparedness, while many encountered challenges, despite most of the adjustments having been taught in lower grades and assessed in past examination papers. It was evident that some candidates lacked a clear understanding of the classification of assets, owner's equity, and liabilities, which resulted in incorrect presentation and an inability to apply the correct format. These candidates experienced the following challenges, notwithstanding the fact that the SOFP has been taught from Grade 10.
- **Fixed deposit:** Most candidates who lost marks were unable to correctly calculate the portion of the fixed deposit not maturing within 12 months when the matured portion was provided. Although the maturing amount was given, many candidates struggled to correctly separate and classify the current and non-current portions of the fixed deposit.
  - **Inventories:** Some candidates were unable to calculate the difference between the closing stock value determined using the correct weighted-average method (Q1.1) and the incorrectly calculated value using the FIFO method, which resulted in inaccurate closing inventory balances.
  - **Provision for bad debts:** The adjustment for a debtor who had overpaid his account and who required his balance to be transferred to the Creditors' Ledger before calculating the provision for bad debts, was not well answered by some candidates. These candidates neglected to remove this amount from the Debtors' Control Account prior to applying the 4% to calculate the correct provision required.

Their calculation of the provision for bad debts on an incorrect or unadjusted debtors' balance, resulted in an overstated or understated provision.

- **Rent income:** The adjustment proved challenging for many, despite being phrased similarly in past examination papers. The only variation was that the correct amount had already been recorded in the Statement of Comprehensive Income (SOCl) after the adjustment was applied. A recurring shortcoming was the use of an incorrect number of months when calculating the adjusted figure, the majority divided by 1 450 instead of 1 230 or by 14,5 instead of 12,3 which resulted in the loss of marks.
- **Directors' fees:** Many candidates did not appear to understand that the given figure was extracted from SOCl and therefore represented the correct amount for the duration of the financial year. The adjustment had already been included in the SOCl, but candidates failed to recognise this. As a result, they were unable to calculate the adjusted fee for the new director, who was employed during the year and earned 25% less than the two existing directors.
- **Shareholders' equity:** The majority of candidates were unable to use 24% of return on average shareholders' equity (ROSHE) to calculate the missing figure for shareholders' equity (SHE) for the current year, despite the formula being provided on the formula sheet. The reversal method has consistently been used to calculate backwards and determine missing figures in answering such questions. Candidates could have earned partial marks by recording the net profit after tax and subtracting the previous year's SHE, but they struggled to apply the percentage correctly to complete the calculation.
- **Loan:** Weaker candidates failed to recognise that the fixed monthly loan repayment was already correctly recorded for the current financial year. They were required to calculate the total repayment for 12 months and then deduct the interest payable in the following financial year. Although this treatment of loans has been consistently examined in past examination papers, many candidates were still unable to apply the correct method and therefore did not achieve full marks.

### Suggestions for improvement

- (a) Candidates in all centres were expected to score well in inventory valuations. Educators are encouraged to reinforce a clear, step-by-step approach to the weighted-average method, ensuring that learners understand the need to calculate the average cost per unit before determining the closing stock value. Teaching should emphasise the use of net purchases by deducting returns and applying the correct number of closing units, regardless of the valuation method initially used. Learners should also be guided to distinguish clearly between the numerator and denominator in the calculation to avoid errors such as swapping or omitting figures. As inventory-related concepts are relevant to Paper 1 and Paper 2, educators must emphasise the factors that may be integrated across both papers. Regular practice using past examination questions, together with structured presentation of calculations, will assist learners in improving accuracy and maximising method marks.
- (b) As highlighted in previous diagnostic reports, OSC is likely to be assessed in most Accounting papers, either in the form of a note or as a calculation when preparing financial statements. Learners should therefore be guided to follow transaction dates when preparing the OSC note, ensuring that each adjustment is applied in the correct chronological sequence. The number of shares must always be recorded on the same line as the corresponding rand value to maintain accuracy and clarity.

Educators should emphasise the importance of consistent and correct presentation, particularly ensuring that the number of shares is recorded on the correct side of the

note. In the context of share repurchases learners should also be exposed to different valid methods of calculating the average share price to build confidence and secure marks in applying the correct method. Regular practice using similar past examination questions will reinforce these skills and improve learners' ability to accurately transfer figures to the financial statements, thereby enhancing overall performance.

- (c) The preparation of financial statements will always form a major component of Paper 1, making it essential for learners to master the required formats and accompanying notes. When preparing the SOFP, learners must understand that it incorporates all closing transfers and transactions, with balances classified as current or non-current based on whether they are due within or beyond 12 months. These balances must be correctly adjusted and classified to reflect their proper position in the statement.

A sound understanding of the accounting equation, introduced from Grade 10, is critical, as it underpins the structure of the SOFP. Learners should recognise that the SOFP mirrors the basic accounting equation  $\text{Assets} = \text{Owner's Equity} + \text{Liabilities}$ , with assets presented at the top of the statement and owner's equity and liabilities presented below. This conceptual understanding assists learners in classifying items correctly and identifying errors more easily.

Learners should also be exposed to different valid approaches to completing the SOFP, such as working from the top down, bottom up or by completing notes first, to develop flexibility and confidence. The notes to the financial statements play a vital role, as they provide clarity and support for figures reflected in the SOFP. Regular assessment of notes is therefore essential to help learners interpret information accurately, link calculations to final statements, and complete required adjustments correctly.

- (d) When revising past examination papers, teachers can adopt a practical approach by providing learners with the Post-closing Trial Balance and requiring them to transfer the figures into the SOFP in the correct places. This method reinforces the idea that processing figures accurately on financial statements is straightforward and can help learners secure easy marks, thereby boosting their confidence in this section of the paper.
- (e) Learners should also understand the importance of using financial indicators to determine missing figures when completing the SOFP. It is important to note that this is not limited to only a few indicators; many different financial indicators can be used to derive figures that will be reflected in the statement. Learners should be exposed to a variety of indicators and be taught how to apply them, as this enables them to link information across the financial statements, ensures accuracy and strengthens their ability to solve the more complex questions when figures must be derived rather than directly provided.
- (f) The use of the ROSHE proved challenging for many candidates. However, its introduction dates back to Grade 10, where learners first applied similar concepts for sole traders. As learners progress to companies, the calculation evolves to reflect shareholders' equity rather than owner's and partners' equity, requiring adjustments for OSC and retained income (RI). Learners should be exposed to the progression of financial indicators to build confidence in applying them in higher grades. The development of ROSHE, for example in Grade 10 prepares learners to accurately apply it in the context of company financial statements, as follows:

<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
Sole Proprietor	Partnerships	Companies

Return on owners' equity	Return on each partners' equity/on average partner's equity	Return on average shareholders' equity
--------------------------	---	--

- (g) The use of the formula sheet is essential for all weaker learners. It is important that learners do not rely on rote memorisation of financial indicators, but rather develop a clear understanding of accounting terminology and concepts. This enables them to identify which formulae can be applied to calculate missing amounts accurately and with confidence for the SOFP.
- (h) Teachers are encouraged to integrate SOFP preparation with notes and financial indicators, emphasise time-based classifications (current vs non-current), and provide frequent practice using past examination questions to strengthen learner competence and performance.
- (i) To build confidence among weaker learners during revision classes, teachers should prioritise calculating each adjustment individually rather than compiling the full set of financial statements. This focused approach allows learners to master the logic behind each adjustment, reducing cognitive overload and reinforcing accuracy before progressing to complete statements.
- (j) Previous reports have emphasised the importance of reinforcing mathematical skills during Accounting lessons. Teachers should remind learners to apply concepts acquired in Mathematics or Mathematical Literacy, particularly those involving fractions, ratios and percentages. Strengthening these foundational skills can significantly improve accuracy in calculations and overall performance in financial statement preparation.
- (k) Teachers should actively encourage dialogue in the classroom to help learners develop a clear understanding of the language of teaching and learning. The use of multiple sources of information will better prepare learners for the final examination and contribute to improved performance. Learners must also be exposed to a wide range of transactions to strengthen their application skills across different contexts. It is essential that a formula sheet be attached to all tasks, whether formal or informal, to support accurate calculations. Regular classroom discussions on the logic of each financial indicator should assist in developing the understanding of all learners in the purpose of the specified indicators.
- (l) Learners should take careful note of the following when dealing with financial statements:
- If SARS income tax reflects a refund, it must be classified under receivables, whereas an amount still owing must be recorded under payables.
  - Shareholders for dividends will always be treated as a current liability once a final dividend has been declared.
  - In some cases, certain amounts may not be directly provided and must be calculated from the available information.
  - Shaded columns indicate that amounts are not required, while pre-printed figures must be carefully considered and incorporated into calculations.
  - All details must be completed accurately and in full to ensure correct presentation and maximisation of marks.

## QUESTION 2: CASH FLOW STATEMENT (CFS) AND FINANCIAL INDICATORS

The content and presentation of this question have become predictable in structure, enabling candidates to prepare more effectively. The clear allocation of topics across the papers, together with the inclusion of a formula sheet, has made the calculation of financial indicators more manageable. As a result, most candidates were able to correctly calculate, or at least earn part marks for figures in the Reconciliation of Profit Before Taxation note (Q2.1; 7 marks), the CFS (Q2.2; 23 marks), the calculation of financial indicators (Q2.3; 13 marks) and the reasons for changes in the company's cash resources (Q2.4; 2 marks).

The availability of the formula sheet enabled well-prepared candidates to achieve improved marks in the financial indicators section, provided that they identify and apply the correct figures appropriately. Given the predictable nature of this topic, it was accessible to weaker candidates and those who rely on structured learning. However, candidates who demonstrate conceptual understanding of the CFS format and the financial indicator formulae would perform notably better.

The overall improvement in performance in this section may be attributed to regular practice using past examination papers and a variety of learning resources, as well as teachers emphasising the importance of understanding the formats, classifications, and application of formulas rather than rote learning. Continued exposure to the CFS and financial indicators, together with integration of relevant topics and contexts will further strengthen learners' confidence and performance.

Teachers must place strong emphasis on the accurate presentation of answers when learners respond to financial indicators. Using the net asset value (NAV) as an example, the correct answer was 1 433,8 cents, as required by *Instruction 7*, which stipulates that *calculations must be shown and answers rounded to one decimal place where applicable*. However, several candidates inappropriately expected to earn full marks by providing incorrectly rounded or incorrectly expressed answers without showing calculations (e.g. 1 433 cents, 1 434 cents, R14,34 or R14,33). In future, teachers are urged to consistently train learners to follow instructions precisely in rounding off the final answers. These expectations should be reinforced through both informal and formal tasks in 2026. Upcoming examination marking guidelines will not award full marks for incorrectly rounded answers. As per the demands of the question, learners will lose a mark on a final answer if the final rounding is not correct.

### Common errors and misconceptions

- (a) The Reconciliation of Profit Before Taxation and Cash Generated from Operations (Q2.1; 7 marks) was generally not well answered by some candidates. This question should have been an opportunity for candidates to score full marks, as it was intended to be a confidence booster. It remains a serious concern that candidates from some centres still fail to exclude SARS (income tax) and shareholders for dividend in calculating the change in receivables and payables, despite clear notes being provided. Additional errors observed include candidates confusing these working capital adjustments and failing to apply the correct sign convention when adjusting for increases or decreases in receivables and payables. The marking guidelines did not consider the sign for awarding marks as only the calculations were required. Alarming, some candidates added the amounts for two years instead of subtracting, resulting in incorrect figures. Many also lost marks because they could not identify whether the change represented an inflow or an outflow.
- (b) In Q2.2 (23 marks), candidates were required to complete the full Cash Flow Statement, although a few columns were shaded. Despite this question having been assessed in previous examinations, errors were still evident at some centres. Challenges with the correct format persisted for a small number of candidates, even though most contra details were already provided. Only five contra items were required

to be completed by candidates, yet difficulties with structure and presentation continued to impact performance.

The factors contributing to poor performance are outlined below.

- **Income tax paid:** Some candidates did not recognise that the amount reflected in the trade and other receivables note at the beginning of the year represented an overpayment of provisional tax, which should have been deducted when calculating the net payment to SARS. Other candidates incorrectly added the amount owed to SARS at year-end, despite it being reflected in the payables note. This obviously led to errors in their calculations.
- **Fixed assets purchased:** The Fixed Asset Note included three assets. Candidates who lost marks failed to recognise that Land and Buildings had identical opening and closing balances, equipment was sold, but not purchased, and only vehicles were acquired. Both opening and closing figures for vehicles were provided, and the task simply required calculating the difference of R380 000 for the new delivery vehicle purchased.
- **Sale of fixed assets:** Candidates did not recognise that the equipment remained in use for only four months before being sold, leading to an incorrect calculation for the current year's depreciation due to the wrong time frame being applied.
- **Shares repurchased:** Many candidates were unable to calculate the repurchase price. They did not understand that the average price represents 100%, and they needed to calculate 140% of the average share price of R11. Several candidates confused the concept of percentage increase incorrectly believing that 60% should be applied to the average share price.
- **Loan repayment:** This should have been a relatively straightforward calculation. The majority of candidates did not use the financial indicator provided to calculate the mortgage loan at the beginning of financial year. They failed to relate the given shareholders' equity to the debt-equity ratio to determine the change in the loan.
- **Net change in cash and cash equivalents:** Calculating the closing balance of cash and cash equivalents, which included an overdraft, was poorly handled by many candidates despite this being a basic arithmetical calculation. These candidates were unable to calculate the net change in cash and cash equivalents from the bottom of the CFS, despite this question following the trend in previous examination papers. Candidates were expected to perform better, given the familiarity of this calculation.

The misplacement of items, calculations not shown and incorrect use of brackets remain areas of concern, indicating that some candidates from certain centres lacked a clear understanding of the required format. Although correct calculations were awarded marks, misplacement and poor presentation affected the overall quality of responses.

- (c) Q2.3 (13 marks) assessed candidates' ability to calculate financial indicators, an area that has been consistently examined in past examination papers. The majority of candidates were able to correctly calculate the net asset value per share and the acid-test ratio, but the calculation of the dividend pay-out rate proved to be particularly challenging. Weaker candidates earned few marks on this indicator, indicating limited understanding of the relationship between dividends paid and declared and earnings for the year. This suggests insufficient familiarity with the formula and difficulty in identifying the correct figures from the financial statements.
- **Net asset value per share (NAV):** In this question candidates who lost marks demonstrated a lack of understanding of the formula for this indicator. This occurred despite both required figures being provided and no calculations being

necessary to determine them. These candidates could not correctly identify figures from the extract of SOFP and Information G (shares and dividends).

- **Acid-test ratio:** Many candidates did not combine Trade and Other Receivables of R3 167 000, together with Cash and Cash Equivalents of R18 000 to determine cash available in business with the exclusion of inventory. Similarly, when determining current liabilities, candidates neglected to combine Trade and Other Payables of R1 609 380 with the Bank Overdraft of R775 000 as reflected in the extract of the SOFP.
  - **Dividend pay-out rate:** Some candidates managed to calculate the interim dividends correctly by using the total dividends paid of R252 000 as reflected in the CFS and subtracting the balance of shareholders for dividends of R129 480 at the beginning of the year. A common mistake observed was that many candidates incorrectly added the opening balance instead of subtracting it, resulting in inflated figures. In addition, some candidates confused *interim dividends* with *final dividends*, leading to misinterpretation of the question and loss of marks. Some candidates attempted to use the DPS and EPS calculations. They struggled because the repurchase of shares did not include the dates, making it impossible to use these indicators in calculating the weighted average number of shares accurately.
- (d) The directors' concern about cash resources at the end of the financial year (Q2.4) was misunderstood. Many candidates did not check the change in cash and cash equivalents and assess whether the net change reflected an unfavourable movement. They would have earned method marks if they had used their own calculated figures in the CFS (Q2.2).

### Suggestions for improvement

- (a) In addressing the challenges observed in the Reconciliation of Profit Before Taxation and Cash Generated from Operations, teachers should emphasise the exclusion of non-current items such as SARS (Income Tax) and Shareholders for Dividends when calculating changes in receivables and payables. Learners must also be trained to apply the correct method for determining year-on-year changes by subtracting prior-year figures from current-year figures, as adding these amounts was a common error. Although marks were not deducted for incorrect + or – signs in this question, teachers should reinforce the importance of sign convention when adjusting for increases or decreases in receivables and payables. This skill is also critical in other sections. Learners need to practice interpreting whether changes represent inflows or outflows of cash in strengthening their analytical skills. This note should be emphasised whenever teaching the CFS, and regular class tests should include questions on parts of the note as well as the full note to assist weaker candidates in mastering the concepts. Structured exercises on this note, will help learners understand the process and build confidence in tackling this question in examinations.
- (b) Teachers should check previous diagnostic reports for further guidance on the teaching of the CFS, as this question continues to be examined in a consistent manner. Examination papers may require candidates to either complete the full CFS by calculating missing figures or calculate specific amounts to assess understanding of individual subsections of the statement.

Teachers must therefore train learners to identify where relevant figures are obtained from the financial statements. For example, when calculating income tax paid, learners need to refer to the SARS (Income Tax) balances in the SOFP, with particular attention to whether the amount represents a refund or an amount owed, as well as the total

income tax expense for the year from the SOCI. The use of T-accounts is encouraged to help learners visualise movements and understand the related notes more clearly.

Cash flows from investing activities should be emphasised, as these items are derived from balances reflected under non-current assets in the SOFP. Teachers should highlight the importance of understanding asset disposal especially when calculating proceeds from the sale of fixed assets. Purchases of fixed assets represent the actual cost of assets acquired.

Cash flow from financing activities should be taught as movements in a company's long-term funding. Learners must link this section to Total Capital Employed, which includes ordinary share capital (OSC), retained income (RI), and long-term loans. They should remember that the issue of shares, repurchase of shares and changes in loan balances affect financing activities, while repurchase of shares must be traced from the OSC and RI. In the case of loans, comparing opening and closing balances and excluding interest, should be emphasised in assisting learners to accurately determine changes in loans.

A strong focus on linking the SOFP, SOCI, and CFS, together with regular practice using past examination questions, will improve learners' confidence, accuracy, and overall performance in this section.

- (c) Performance below average in calculating financial indicators highlights a serious lack of understanding of the logic, application and purpose of these financial indicators. Weaker learners require targeted support when engaging with financial indicators (Q2.3). Rather than relying on rote learning, learners should develop a clear understanding of the meaning, purpose and components of each formula, which will enable them to identify and apply the correct indicator more effectively.
- (d) When calculating the dividend pay-out rate, candidates should be aware that there are two possible formulae. Teachers must emphasise that interim dividends can be calculated in different ways, and learners should be exposed to multiple approaches to prepare them for the examination. Learners should carefully read the entire question before attempting an answer to determine which method is appropriate.

Figures for dividends are shown in the following categories in the financial statements. As weaker learners might be confused in interpreting dividends found in three different sections in the financial statements, teachers are advised to reinforce the following principles.

Location in the financial statements	Items reflected	The dividends calculated include
Trade and Other Payables Note	Dividends that are owed at the end of a financial year	Only final dividends <u>declared but not paid</u> in the current financial year
Retained Income note	All dividends relevant to the current financial year	Interim dividends <u>paid</u> in the current financial year <i>PLUS</i> final dividends <u>declared but not paid</u> in the current financial year
Cash Flow Statement	Only dividends that have actually been paid in the current financial year	Dividends declared in the previous financial year but <u>paid</u> only in the current financial year <i>PLUS</i> interim

		dividends <u>paid</u> in the current financial year.
--	--	--

- (e) Teachers should encourage classroom dialogue and discussion, prompting learners to explain, interpret and justify the movement of cash when preparing a CFS. This practice will develop learners' analytical and commenting skills, enabling them to respond confidently to similar questions in examinations of giving reasons of the concern of cash resources.

### QUESTION 3: INTERPRETATION OF FINANCIAL INFORMATION

This question assessed candidates' ability to interpret and analyse financial information relating to two companies over two consecutive financial years. The structure and level of difficulty were aligned with past examination papers, although the question integrated a wider range of information, including interpretation of financial information (26 marks), majority shareholding (Q3.2.3; 10 marks) and an audit report (Q3.5; 4 marks). This integration was deliberate, as it allowed for open-ended responses in some questions that required candidates to apply knowledge, justify opinions and demonstrate analytical thinking rather than rely on rote learning.

Although the content was predictable, in line with previous NSC examination papers certain aspects and contexts are presented differently to encourage deeper understanding and to instil confidence in interpretation skills. The open-ended questions were designed to create opportunities for learners to engage with real business scenarios and to recognise that financial interpretation reflects the actual results and performance of a business. These results must be analysed to obtain a clear view of what the business did well, and which areas require improvement. However, many average and weaker candidates lost marks by providing partial answers, often stating only the financial indicator, trend or figures without meaningful explanation or reference to the information given.

It is essential that teachers promote dialogue and discussion in the classroom, allowing learners to verbalise their thinking, justify conclusions and challenge the interpretations of others. Through guided discussions, learners develop the ability to analyse financial information logically and with confidence, which is critical for open-ended questions.

Teachers are urged to emphasise the importance of careful reading of the question paper (QP) rather than relying only on the answer book (AB). Clear instructions are provided on how to respond to interpretation of financial information questions, and these must be followed precisely. Where comments or explanations are required, learners are expected to quote the relevant financial indicators, indicate the trend using figures, and provide a clear reason or explanation for the indicators quoted, unless the question specifies otherwise. These requirements should be consistently reinforced in both informal and formal assessment tasks, so that learners become familiar with the expected response structure and can apply it confidently in examinations.

#### Common errors and misconceptions

- (a) Q3.1 (3 marks) and Q3.2 (8 marks) were designed as straightforward, confidence-building questions to enable candidates to identify the description given and be able to identify financial indicators with trends and figures as stipulated in the questions. Despite this intention, weaker candidates in some centres experienced notable difficulties.

- (b) It was disappointing that some centres had candidates who could not earn full marks for easy evaluative questions on operating efficiency (Q3.2.1; 4 marks) and Liquidity (Q3.2.2; 4 marks).

The following were noted:

**Operating efficiency:** It is evident that candidates relied on rote learning rather than conceptual understanding, which ultimately led to the loss of marks. Although some candidates correctly identified the profitability indicators, they failed to use the correct financial data relating to the company's pricing policy. In some centres, candidates merely stated incorrect or irrelevant profitability indicators, without interpreting it or linking it to pricing decisions and managed to score only part-marks. At times, candidates wrote only % operating expenses on sales as their answer. This indicated a weak understanding of which profitability indicators should be applied to assess and explain a company's pricing policy.

**Liquidity:** Similarly, some candidates correctly identified liquidity indicators but did not link their answer specifically to the company's credit policy. Rather than interpreting the indicators to explain how credit policy has improved the liquidity of the company, they simply listed other indicators that are not relevant to credit policy. Some candidates also used figures relating to the incorrect company, despite the question clearly specifying which company was to be analysed.

Loss of marks was largely due to inadequate reading of the question, resulting in candidates selecting correct financial indicators but failing to address the specific requirement which is pricing and credit policy.

- (c) In the shareholding question of Shorts Ltd (Q3.2.3 (i); 4 marks), some candidates were unable to apply the given 40% shareholding of Lewis Clark (CFO) to determine his revised percentage holding after the repurchase of shares during the current financial year. Candidates failed to recognise that a share repurchase automatically alters the percentage holdings of remaining shareholders.

In addition, candidates could not figure the reasons of the CFO's role in persuading the CEO and the board to approve the repurchase (Q3.2.3 (ii); 4 marks). Few were able to identify valid reasons why the internal auditor should be concerned, particularly given that the shares were repurchased before final dividends were declared and at a price higher than the NAV and market price (MP). This reflects a limited understanding of how share repurchases can be used to influence control, dividend distribution, and shareholding percentages. It also reflects a lack of awareness of potential conflict of interest on the part of the CFO as well as governance risks. Candidates should have understood that repurchasing shares increases the ownership stake of remaining shareholders. In this case, the CFO, who already held 40%, could have been motivated by the prospect of becoming the majority shareholder.

In calculating the additional amount that the company paid (Q3.2.3 (iii); 10 marks), many candidates incorrectly calculated the difference in price between the average price (R3,00) and the market price (R2,56) without determining the additional value of the shares. They failed to recognise the value impact of the repurchase of shares and not merely the price variance. The common error was confusing a price difference with an additional value calculation.

- (d) In Q3.3.1(i) candidates who lost marks did not check that the question referred to both Shorts Ltd and Lynn Ltd, as clearly indicated in the QP and AB. As a result, they provided an answer for only one company, despite the question explicitly referring to the CEOs of both companies. This omission led to a loss of marks, as a comparative response was required.

Similarly, Q3.3.1 (ii) relating to a potential investor's view that Lynn Ltd had a better dividends pay-out rate was poorly answered by some candidates. These candidates did not recognise that Shorts Ltd retained no funds, while Lynn Ltd retained 46,1% of its earnings. In some centres, candidates again discussed only one company instead of evaluating both, which reflected weak comparative skills irrespective of the question being specific about two companies.

- (e) Some candidates incorrectly compared the NAV of different years within each company, instead of comparing NAV to the market price (MP) as required. The intention of the question was to assess shareholder satisfaction, which is determined by whether the market price reflects a premium or discount relative to NAV. A comparison of NAV to NAV, even where an increase is evident, does not provide a valid basis for evaluating shareholder value or market performance.
- (f) In Q3.4 most candidates correctly identified the percentage return on total capital employed (% ROTCE) as the relevant indicator for the correct company. However, few candidates were unable to provide an explanation for why the directors considered an increase in loans to be a sound decision. They did not notice that the % ROTCE was higher than the interest rate on loans which indicated a positive gearing.
- (g) Q 3.5(i), candidates were expected to identify the shareholders' concern based on the extract of audit report given in Information D. Despite this area having been examined in past examination papers, some candidates continued to struggle to distinguish between the different types of audit reports, which prevented them from correctly interpreting the concerns the shareholders had.
- (h) Some candidates provided random responses that did not address the audit evidence revealed on the audit report for Q3.5(ii), resulting in a loss of marks. This highlighted a lack of comprehension of what the question demanded, particularly as it specifically read 'based on this audit report'. Candidates should have identified it as a qualified report and were expected to interpret the information provided in applying it meaningfully, rather than offering general statements.

### Suggestions for improvement

- (a) To help learners secure easy marks and build confidence in concept-based questions, teachers should explicitly teach and reinforce accounting subject language alongside content. Concepts and terms should be unpacked in class, displayed on wall charts, and revised regularly using short, focused activities. Learners should be trained to practise with different sources (study guides, past examination questions, etc.) and short daily drills.

Teachers are advised to model how learners should read the question carefully, underline command words and identify what is being asked before answering. Using structured response frameworks (e.g. *identify the concept* → *quote the indicator* → *apply it to the question*) will help learners answer accurately and concisely. Regular low-stakes assessments, peer discussions and oral questioning should be used to encourage learners to explain concepts in their own words, reinforcing understanding rather than rote learning. This approach enables learners to recognise familiar concepts quickly, earn straightforward marks, and approach more complex questions with increased confidence.

- (b) Teachers should explicitly teach financial indicator categories with different purposes from Grade 10. Profitability ratios must be linked to a company's pricing policy and its ability to generate profit from sales, while liquidity ratios relate to credit policy and the

ability to meet short-term obligations. Learners should be trained to recognise key trigger words in questions, such as *pricing* for profitability and *credit* for liquidity, to guide the selection of the correct indicators. Teachers should consistently group ratios by purpose rather than by formula, reinforce a structured answering approach (identify the indicator, quote figures and trend, and explain), and use frequent short practice activities that focus on choosing and interpreting the correct ratio. This will help learners distinguish between the two categories, apply indicators correctly, and confidently secure easy marks.

- (c) Learners should be taught that an effective credit policy, such as shorter credit periods for debtors and longer credit periods for creditors, strengthens liquidity. Efficient debtor control and prompt collection of outstanding amounts increase cash inflows and reduce the risk of bad debts, while well-managed payment periods to creditors help preserve cash and prevent missed payments due to insufficient funds. Poor credit control, in contrast, leads to slow collections, funds being tied up in receivables, and late payments, all of which weaken liquidity and make it difficult for the business to meet its short-term obligations.
- (d) In calculating the shareholder's percentage for the previous and current year, learners must first check the total number of shares in issue for each year. For the previous year, candidates were supposed to divide the shares owned by the total shares at the end of financial year and multiply by 100. For the current year, look for changes; if new shares were issued, the percentage decreases unless the shareholder bought more shares; if shares were repurchased, the percentage increases because the total shares are fewer. Always use the formula:

$$\% \text{ shareholding} = \frac{\text{Shares owned}}{\text{Number of shares in issue}} \times \frac{100}{1}$$

Teachers should reinforce the importance of interpreting the impact of share repurchases and shares issued on control and decision-making within the company. Learners must understand that an increase in percentage holding can lead to significant influence, majority control or vice versa when it decreases. This has strategic implications for governance and financial decisions.

- (e) Teachers should teach dividends pay-out rate as a comparative indicator, to determine if any funds are retained or not. Learners must be trained to firstly identify how many companies are being assessed by carefully reading the QP and highlighting company names before attempting an answer. Teachers should model this practice in class by using past examination papers and explicitly asking learners to state whether the question requires a single-company analysis or a comparison between two companies.

When teaching the dividend pay-out rate, teachers should emphasise that learners must calculate or quote the rate for each company separately, interpret what it shows about each company's dividend policy, and then compare the two before drawing a conclusion. Classroom activities should require learners to respond using a structured format: *Company A – indicator and interpretation; Company B – indicator and interpretation; comparison and conclusion*. Reinforcing this approach in both informal and formal assessments will help learners avoid omissions, improve accuracy, and secure full marks in comparative questions.

- (f) Comparing NAV to NAV only shows changes in the book value of a company over time or differences between companies and does not indicate shareholder satisfaction or market perception. In contrast, comparing NAV to MP provides insight into how the market values the company relative to its NAV and therefore reflects shareholder

confidence and perceived performance. Where questions require an evaluation of performance or shareholder satisfaction, learners must compare NAV with MP, as an increase in NAV on its own is not a sufficient indicator of market success. Teachers should explain this distinction in class to ensure learners apply the correct comparison in examinations.

- (g) Despite few learners answering the audit report incorrectly, it is crucial that they are able to interpret and clearly differentiate between the three types of audit reports taught in Grade 12. Each report provides different information and influences decision-making in diverse ways. Teachers should guide learners to understand the purpose of each report, the type of information it presents, and its specific impact on shareholder decisions, so that learners can analyse and apply the information appropriately when responding to examination questions.

#### QUESTION 4: CORPORATE GOVERNANCE

This question on corporate governance examined a core principle of the business environment, highlighting the systems, procedures and practices that promote integrity, accountability and transparency within a company. As a 15-mark question, it allowed candidates to demonstrate their understanding of governance principles that support ethical conduct, financial stability and sustainable business performance. Corporate governance is a cross-cutting theme throughout the curriculum, as prescribed by the CAPS, and is consistently reinforced through the Annual Teaching Plan (ATP) and the *Examination Guidelines*.

The subquestions were designed to assess a broad understanding of governance concepts: Q4.1 (2 marks) tested knowledge of *Corporate Social Responsibility (CSR)*, Q4.2 (2 marks) focused on *Ethics*, Q4.3 (5 marks) assessed understanding of *Solvency*, and Q4.5 (4 marks) examined the concept of a *Rights Issue*. Collectively, these questions evaluated candidates' ability to link governance principles to ethical conduct, financial stability, and strategic decision-making within a company.

#### Common errors and misconceptions

- (a) The majority of candidates successfully scored full marks in advising shareholders on the importance of corporate donations (Q4.1). Even those who did not achieve full marks were able to provide at least one valid piece of advice. This question was intended to be a confidence booster to all candidates. This topic, forming part of CSR, should be consistently introduced and reinforced when teaching corporate governance to ensure learners understand its relevance and can apply it effectively in examination contexts.
- (b) Q4.2(i) candidates had to explain the importance of employees reporting unethical behaviour in the business. In some centres, this question was poorly answered, as candidates failed to recognise that it was open-ended and required them to demonstrate their understanding of rectifying and preventing unethical conduct within an organisation. Similarly, in Q4.2(ii), candidates struggled to suggest measures the company could take to prevent senior managers from mismanaging funds. Many missed the opportunity to apply their knowledge and provide practical solutions, resulting in lost marks. These responses highlight a common misconception of learners often rely on memorised answers rather than engaging critically with open-ended questions to show comprehension and reasoning.
- (c) Candidates' responses to (Q4.3; 2 marks) were generally satisfactory. However, some lost marks by incorrectly defining 'insolvency' as the business being 'bankrupt'. This reflects a common error where candidates fail to distinguish between related financial

concepts. Candidates were expected to demonstrate a clear understanding of the concept of 'insolvency' which refers to a company's inability to pay its debts as they fall due rather than confusing it with bankruptcy, which is a legal status described as 'a legal person/organisation judged by a court to be insolvent whose property is taken and disposed of for the benefit of creditors'.

- (d) Q4.4 on Rights Issue has been a recurring topic in past examination papers since 2022. Learners are expected to understand its impact on both the business and shareholders, including how the issue of shares affects cash inflows and the accounting equation. Some candidates lost marks because they did not fully grasp this concept, despite the explanation being provided in Article 2. It was a common occurrence that although candidates appeared to have understood the term superficially, they failed to apply it practically to the recovery of the company, its financial records and financial position, which was essential in earning full marks.

### Suggestions for improvement

- (a) It is important for learners to understand that corporate governance guides how decisions are made, how management is held accountable, and how the interests of shareholders, customers and other stakeholders are protected, supporting the long-term success and sustainability of the business. To enhance classroom engagement in corporate governance, teachers should use real-life scenarios and case studies drawn from past examination papers, current business news and South African corporate examples. Short, context-based scenarios on ethics, corporate social responsibility (CSR), audit reports, or rights issues can be used to stimulate discussion and critical thinking. Group discussions, debates, and role-play activities (e.g. acting as board members, shareholders or auditors) help learners understand different stakeholder perspectives. Teachers should also encourage learners to analyse scenarios using a structured approach by identifying the governance issue, explaining its impact on the business and stakeholders, and suggesting appropriate solutions. This approach helps learners connect theory to practice, strengthens interpretation skills, and prepares them to respond effectively to corporate governance questions.
- (b) Teachers should create an environment that encourages dialogue and critical thinking, enabling learners to approach problems with confidence and practical solutions to equip them with necessary ethical skills for their future careers. It is essential to break down the concept of ethics in corporate governance beyond a limited set of memorised answers. Learners must understand why reporting unethical behaviour is important and how such actions affect employee morale, company performance and reputation. Similarly, they should appreciate the role of a code of conduct in guiding behaviour and why cultivating a culture of ethical practices and sound corporate governance is vital for every organisation.

To address common misconceptions, teachers should incorporate case studies and real-life examples to illustrate ethical dilemmas and their consequences. They should promote open discussions and application-based questions rather than rote learning. Learners, on the other hand, should actively participate in these discussions, practice explaining the significance of ethics and governance, and explore examples of companies impacted by unethical practices. This approach will help them move beyond listing definitions and develop a deeper understanding of why ethics and governance matter in the corporate world.

- (c) Concepts such as *ethics*, *auditing* and *corporate governance* are integrated throughout the curriculum as outlined in the ATP. Teachers should encourage learners to broaden their understanding of concepts beyond what is taught in class by exploring multiple

sources. Understanding *solvency* is equally important, a business is solvent when its total assets exceed its total liabilities, and insolvent when the opposite is true.

- (d) The concept of a rights issue has been assessed in previous examinations, and some candidates demonstrated sound insight and were able to score maximum marks. Although the scenario clearly explained the rights issue, certain centres still experienced challenges in interpreting and applying the concept correctly. Teachers are therefore encouraged to expose learners regularly to articles and real-life examples relating to rights issues. Increased exposure will enhance learners' understanding and enable them to respond accurately to scenario-based questions. The following aspects should be emphasised to help learners clearly differentiate between a rights issue and a public issue of shares:

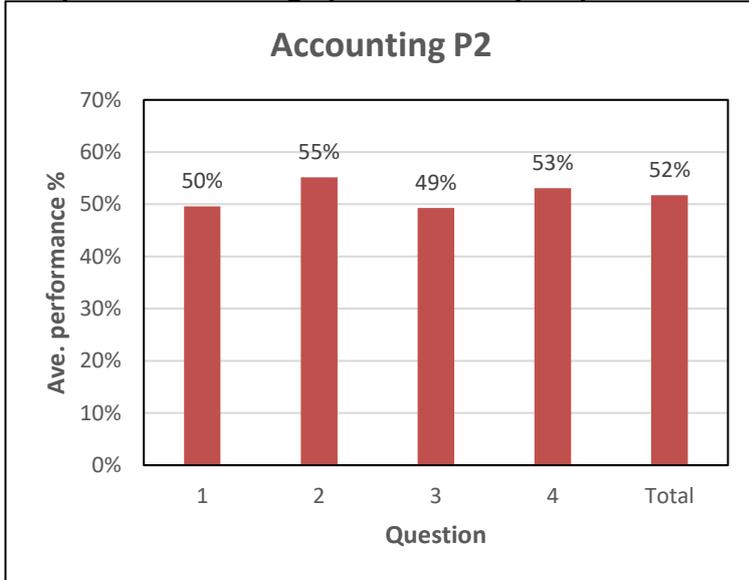
Aspect	Rights Issue	Public Issue
Definition	Offering additional shares to existing shareholders at a discounted price.	Offering shares to the general public, including new investors.
Target Investors	Current shareholders only.	New and existing shareholders.
Cost Implication	Lower cost due to minimal marketing, fewer regulatory requirements, and lower fees.	Higher cost due to extensive compliance, marketing, underwriting, and listing fees.
Speed of Process	Faster and simpler due to limited audience and documentation.	Slower due to regulatory approvals and public marketing.
Control	Maintains existing shareholder control if they subscribe.	Dilutes ownership as additional new shareholders join and will expect to share profits.
Purpose	Quick capital injection without debt and preserves shareholder structure.	Raises large capital; expands shareholder base and market visibility.
Impact on Cash	Immediate cash inflow from existing shareholders.	Significant cash inflow from a wider shareholder pool.

Including such questions in SBA tasks, such as written reports and projects, will expose learners to the concept and better prepare them for examinations. A variety of scenario-based questions should be used to test different contexts and applications. This will improve learners' analytical skills and help them distinguish between similar concepts more effectively.

## 2.5 DIAGNOSTIC QUESTION ANALYSIS OF PAPER 2

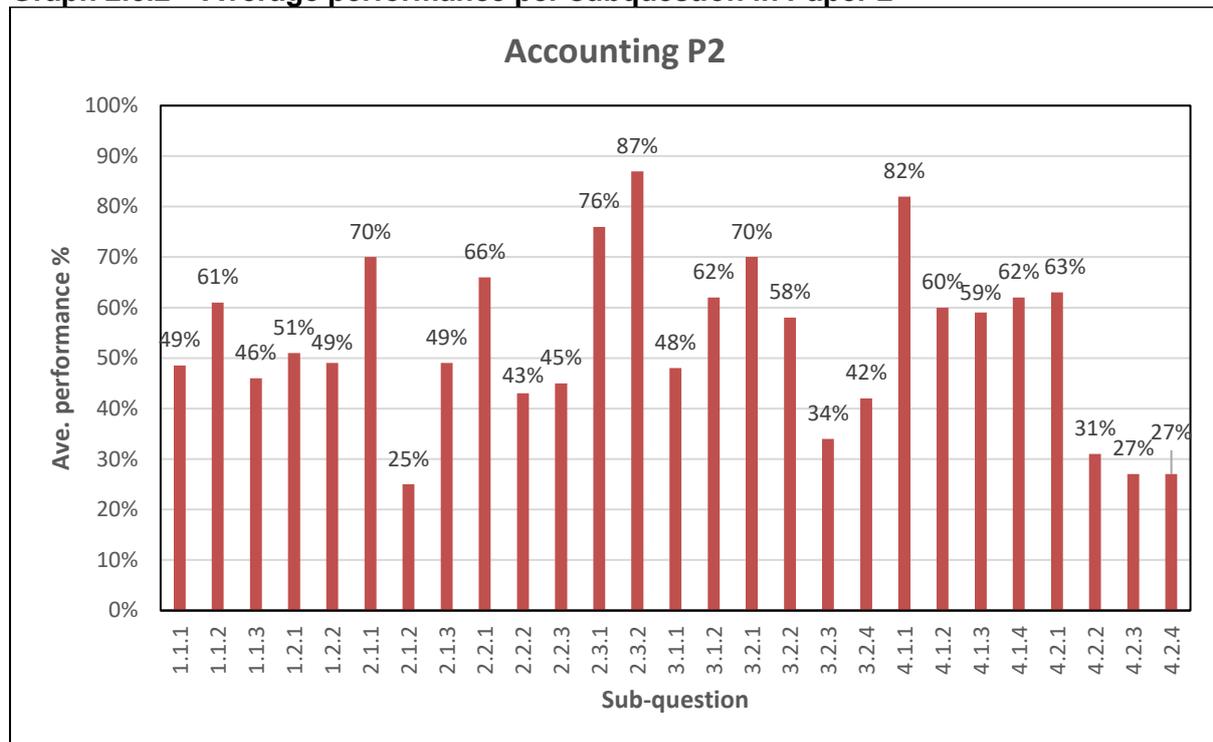
The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degree of challenge of each question as experienced by candidates.

**Graph 2.5.1 Average performance per question in Paper 2**



Q	Topics
1	Reconciliations
2	Stock valuation
3	Cost Accounting
4	Budgeting and Problem Solving

**Graph 2.5.2 Average performance per subquestion in Paper 2**



Sub-Q	Topic	Sub-Q	Topic
1.1.1	Cash Journals	3.1.2	Cost of Production of Finished Goods
1.1.2	Bank Reconciliation Statement	3.2.1	Break-even Point
1.1.3	Management of Cash	3.2.2	Comment on BEP
1.2.1	Creditors Reconciliation	3.2.3	Fixed Cost
1.2.2	Problem-solving	3.2.4	Variable Cost
2.1.1	Value of Closing Stock – FIFO	4.1.1	Debtors' Collection Period
2.1.2	Shelf-life Stock	4.1.2	Projected Statement of Comprehensive Income
2.1.3	Management of Stock	4.1.3	Budget Calculation
2.2.1	Value of Closing Stock – SIM	4.1.4	Fixed Deposit
2.2.2	Stockholding Period	4.2.1	Budgeting

2.2.3	Problem-solving	4.2.2	Loss on Sales
2.3.1	Decision on Stock	4.2.3	Financial Obligations
2.3.2	Change of Stock	4.2.4	Remuneration to Employees
3.1.1	Factory Overheads		

The predictable structure of Paper 2 enabled most centres to focus on the specific topics examined in this paper. Candidate performance suggests that revision sessions implemented at various centres were beneficial and provided learners with meaningful opportunities to consolidate content knowledge and improve examination readiness. As a result, many candidates were able to respond more effectively to questions across the assessed topics.

As highlighted in previous reports, weaker candidates continued to experience difficulty with interpretation and evaluation-type questions. Their responses were often incomplete, which prevented them from achieving full marks. Many of these candidates struggled to identify key words in problem-solving questions, resulting in answers that did not fully address the requirements.

Cost Accounting (Q3) and Budgeting (Q4), which are taught in Grade 11, remained areas of concern. Given their prior exposure to these topics, candidates were expected to achieve above-average performance. However, many continued to experience difficulties, particularly in questions that required analysis and interpretation. A recurring challenge was the incorrect or limited use of appropriate key words in responses.

Effective responses to interpretative and evaluative questions require the ability to read data critically and draw logical conclusions from the information provided. The difficulties observed suggest that candidates need increased practice in analytical questioning and guided exposure to data-driven problem-solving tasks.

## 2.6 ANALYSIS OF LEARNER PERFORMANCE IN EACH QUESTION IN PAPER 2

### QUESTION 1: BANK RECONCILIATION AND CREDITORS' RECONCILIATION

This question tested Bank Reconciliation (Q1.1) and Creditors' Reconciliation (Q1.2) and was pitched as the easy to moderate challenge, comprising basic application relevant to the Grade 11 curriculum. Evaluation-based questions tested candidates' ability to advise on challenges in respect of cash management (Q1.1.3) and corruption within the business environment (Q1.2.2).

#### Common errors and misconceptions

- (a) Candidates continue to experience difficulty in placing the relevant figures in the correct Cash Journals (Q1.1.1; 10 marks). Candidates are placing amounts as negative amounts in the CRJ and CPJ. As a Journal is a book of first entry, the correct amount for each transaction must be accounted for. The duplicated debit order on the Bank Statement was recorded in the Bank Reconciliation Statement as an error by the bank by candidates. This indicates that candidates are responding without reading through information provided as duplicated debit orders were indicated as an error by the bank in past year papers.
- (b) While it is encouraging to note that outstanding deposits and EFTs are being correctly treated by the majority of candidates (Q1.1.2; 7 marks), there is still a challenge correcting errors found on the Bank Statement. Candidates treated the business's debit card, used by the owner, only as an outstanding EFT in the Bank Reconciliation Statement. Many candidates tried working out the balance in the bank account although this information was not required as the balance on the bank R119 080 was

provided. This again shows that candidates do not read the requirements of the question but simply provide a response based on past year papers or examples done in class. The AB made provision for two-column and the one-column methods and candidates had to choose an option. The two-column method was the preferred method of the majority.

- (c) Evaluation type question (Q1.1.3; 6 marks), which is classified as a higher-order thinking skill, has always been tested in past year papers. However, candidates are still challenged with identifying problems (including figures) with the management of cash.
- (d) In preparing the Creditors' Reconciliation (Q1.2.1; 11 marks), weaker candidates did not indicate the increase or decrease next to each amount. They also placed amounts incorrectly in both columns and were penalised for superfluous entries. The relatively poorer response of candidates in the Creditors' Reconciliation indicated a lack of emphasis placed on revision of Grade 11 content.
- (e) Candidates do not understand the processes of purchasing/acquiring stock and the supporting documents (Q1.2.2(i); 4 marks) and thus cannot determine appropriate internal controls. Candidates are not familiar with the correct disciplinary practices and procedures as per labour laws (Q1.2.2(ii); 2 marks) and do not use the appropriate terminology.

### Suggestions for Improvement

- (a) While teachers see this as an 'easier' topic, candidates struggle with it. Weaker candidates will need extensive revision. The pace of the Grade 12 ATP allows only two weeks for revision of reconciliations covered in Grade 11 as well as the introduction of Debtors' Age Analysis. Teachers must be cognisant of the fact that the topic is covered in the first term of Grade 11 and then only again at the end of the second term of Grade 12. As per the CAPS document, the focus in Grade 12 should be on analysis and interpretation of reconciliations, however, they must first understand the application processes to be able to analyse. Teachers are expected to source and adapt material to suit their needs as changes in the banking sector will render the older material irrelevant.
- (b) The internal control benefits of reconciliations must be continually highlighted by teachers. Clear steps that involve identifying differences and taking corrective action to address errors and omissions must be emphasised. Practical examples using external documents (i.e. Bank Statements and Creditors' Statements) should be the first logical step. More complex examples must follow once learners acquire the skills of determining where the errors are made, and how they should be treated. Internal control and management of cash need to be stressed with reference to developments in electronic banking and the use of EFTs.
- (c) It may be necessary to reflect on source documents introduced in Grade 10 to illustrate the effect of cash transactions on the *Accounting Equation*. A comparison between such documents and the information on Bank Statements will also assist in highlighting errors and possible mismanagement or fraud.

Teachers must ensure that in-depth revision of all forms of reconciliations (including debtors and creditors) are included in their teaching plans. *Debtors' Reconciliation* will generally focus on a comparison of the control account with a list of debtors, while *Creditors' Reconciliation* will also include a comparison of individual Creditors Ledger accounts with statements received from the creditors. Teachers must adapt activities to include all possible differences that may arise between two sets of records.

Understanding the logic behind such differences makes the correction thereof more meaningful.

- (d) This question concentrated mainly on the processes of reconciliation. Teachers and subject advisors are encouraged to source and adapt a variety of activities from past examination papers as well as study guides so that learners become familiar with the different ways in which this topic can be assessed.
- (e) Informal assessment programmes that support the formal assessment tasks must include short, formative class tests that can be easily self or peer marked. These will serve as confidence boosters when addressing more complex activities.
- (f) Subject advisors must ensure that teachers keep up with current trends by providing on-going support in the form of mini-workshops and resource material. As the economy moves towards the electronic age, learners are being exposed to the media and are familiar with the internet. Changes must therefore be incorporated into the teaching and learning process.
- (g) Learners must be given opportunities to express themselves and class discussions must be open to differing views. It may be time consuming, but teachers need to look beyond the textbooks and prepared material to acquire relevant material for discussion. Newspaper articles and other business publications are good starting points.
- (h) Teachers must explain the process of acquiring assets including researching prices, getting quotations, invoices matching delivery notes and payments. They must also emphasise labour law practices with regard to disciplinary procedures in class.

## **QUESTION 2: STOCK VALUATION AND MANAGEMENT OF INVENTORIES**

This question focused on the first-in-first-out method (Q2.1.1; 7 marks) and the specific identification method (Q2.2.1; 4 marks). Calculations also included value of stock exceeding its shelf life (Q2.1.2; 2 marks) and stockholding period (Q2.2.2 (i); 5 marks). Candidates were able to score marks in the calculations but struggled with the interpretative aspects of this Q2.1.3 and Q2.2.3. The interpretation/evaluation types of questions were pitched at the higher order cognitive level and required a clear understanding of concepts and insight.

### **Common errors and misconceptions**

- (a) Q2.1.1 required candidates to calculate the value of closing stock using the first-in-first-out method. The weaker candidates did not consider the items that were returned from the latest purchases. It was disappointing to note that a fair percentage of candidates still struggled with this calculation and the presentation of the calculation, keeping in mind that this is a regular question in most of the past year papers.
- (b) The majority of candidates were unable to calculate quantity and value of stock that exceeded its shelf life of 65 days (Q2.1.2; 2 marks). It is possible that candidates were unable to understand that the first-in-first-out method is the stock valuation method that it most likely to be used in businesses trading with products that have a limited shelf life. Based on the poor understanding by candidates on the concept of shelf life, they were unable to comment on how these losses may be prevented in the future (Q2.1.3; 4 marks).
- (c) Q2.2.1 required candidates to calculate the value of the closing stock of the Rotrim model using the specific identification method. A fair percentage of candidates still

struggled with these calculations and the presentation of the calculation, keeping in mind that this has been tested numerous times in past year papers. Candidates were unable to determine the quantity of the closing stock (opening stock + purchases – returns – sales) but were able to score 2 out of 4 marks for this question.

- (d) Candidates had to calculate the stockholding period (Q2.2.2; 5 marks) and then comment thereon (2 marks). Candidates are still using the average trading stock amount although the question indicated that only the closing stock amount had to be used. This calculation with the requirement of only using the closing stock has been tested in past year papers. The calculation of cost of sales was poorly completed by candidates, although this concept is introduced in the Grade 11 syllabus.
- (e) In Q 2.2.3 (ii), candidates were unable to compare the performance of the Clear View model with the Rotrim and Punchies models to confirm that it justifies the owner's decision to introduce it. Q2.2.3(ii), candidates did not understand that returns were being made by the business to their suppliers and answered the question from the viewpoint of customers returning stock to the business, focusing on physical protection of items to prevent damage as opposed to stock being returned to suppliers which would imply some responsibility on their side for the faulty printer or a factory fault or quality defect.
- (f) Candidates were able to identify the decision implemented for the electric fans (Q2.2.3(i); 1 mark), but the relatively poorer response of candidates to Q2.3.1(ii) and Q2.3.2 was due them not responding the *positive result* for electric fans and 'not a good idea' for fridges.

### Suggestions for improvement

- (a) Questions set on the stock valuation method is limited to one of the following methods: first-in-first-out; weighted-average and specific identification. In each of these methods, the calculation of the closing stock is the distinctive factor. Teachers are advised to use methods commonly recommended in most textbooks, study guides and past year examination memorandums. Other methods (using cost of sales) of calculating the value of the closing stock is also correct but are lengthy and not necessary.
- (b) A clear understanding of the *perpetual* and *periodic inventory systems* must form the basis of this topic and must be reiterated. Teachers must make it very clear that the value of the closing stock, under the periodic system, is determined by a physical count, and that stock losses will only be noticed after valuing the closing stock.
- (c) Teachers need to place greater emphasis on improving reading comprehension prior to attempting to answer questions. Learners must be made aware that questions can be phrased differently to test deeper understanding of the topic. Usually past year examination papers emphasised, among other things, the calculation of the value of the closing stock. The emphasis in this paper moved to determining the value of the missing stock. The same concept but now tested differently.
- (d) Teachers must draw attention to the types of products used in the stock question as this may have an effect on the stockholding period of the product. Learners will be incorrect in assuming that a high stockholding period may be a disadvantage to the business as it is dependent on the type of product they are dealing with. Also, a learner indicating that the product may 'go out of fashion' as in the case of formal shirts will be incorrect.

- (e) Determining or verifying the value of the closing stock may be tested with other topics in the Grade 12 Accounting syllabus. This will include Financial Statements and Cost Accounting. Teachers need to be more creative and implement such integration in their presentation of these topics in the classroom.
- (f) Learners must be exposed to short formative tests on the calculation of closing stock, gross profit, mark-up %, etc. This will help to improve mathematical skills of learners, especially the weaker ones.
- (g) The topic of stock lends itself to ethics and problem-solving scenarios. Teachers must advise learners to analyse the information presented to illustrate the differences of each stock method, usually in tables, to justify and support the arguments they present. This will normally involve comparisons between different products or between time periods. It is also important for teachers to expose learners to interpretive, evaluative and problem-solving questions on this topic. Class discussions and debates must be conducted to evaluate the responses of learners.
- (h) Teachers are cautioned not to use past papers as a primary source for teaching and learning. Instead, past examination papers should be used for revision purposes. Subject advisors could structure their contact programme with teachers to include developing resource material on all topics to supplement their lessons in class.

### QUESTION 3: COST ACCOUNTING

This question focused on, firstly, calculation of amount for factory overhead cost. Unlike previous papers, drawing up of the Production Cost Statement was not required, but candidates were required to calculate the cost of production of finished goods. The majority of candidates seemed to handle these calculations satisfactorily. Weaker candidates were able to score part and method marks as they again displayed a lack of mathematical skills. The second part of the question was based on the calculation of the break-even point (BEP) and commenting thereon and the traditional interpretation of financial information and unit costs.

Subtitle changes in context and different questioning styles lifted the challenge in some subquestions.

#### Common errors and misconceptions

- (a) In Q3.1.1 candidates were challenged with the following calculations:  
**Insurance:** Candidates did not exclude the prepaid amount.  
**Rent expense:** Candidates were unable to establish that only the rental space of the factory was changed with the rental rate per m<sup>2</sup> remained the same. However, most candidates earned 2 out of 5 marks.  
**Depreciation:** The calculation of the new equipment was well answered but candidates could not calculate the depreciation on the old equipment.  
  
 Candidates who included advertising as a factory overhead cost were penalised on the total for this subsection.
- (b) Many candidates were unable to 'visualise' the Production Cost Statement and did not include the opening/closing balances for work-in-progress to calculate the cost of production of finished goods (Q3.1.2; 4 marks).
- (c) In commenting on the level of production and break-even point in Q3.2.2, learners are still comparing BEP to BEP and production to production, instead of BEP to production

level. As a result, candidates do not indicate whether the business is making a profit or loss. This comment has been asked for in most past year papers. Hence it is disappointing to note that candidates are still not scoring full marks.

- (d) In Q3.2.3, the majority of candidates were able to identify the fixed cost item that was poorly controlled but were unable to identify the reason for this concern.
- (e) Candidates mixed up the cost item that was poorly controlled with that which was well controlled in Q3.2.4. Candidates also lost marks for not mentioning the trend with figures.

### Suggestions for improvement

- (a) The information to calculate the cost of production of finished goods was presented differently to learners in this paper. It is therefore important for teachers to expose learners to different questioning styles to enhance their mathematical skills in calculating amounts. A variety of informal tests can be useful and these can be peer-marked and class discussions must follow.
- (b) When calculating the amounts of factory overhead cost (insurance, rent expense and depreciation in this paper), teachers are advised to remind learners that year-end adjustments, as tested in the preparation of the Statement of Comprehensive Income, is also applicable to the preparation of the *Factory Overhead Cost Note*. Teachers must also emphasise the importance of showing calculations in the space for such. In most instances, workings carry part marks which will lead to the method mark being allocated to the final answer.
- (c) Teachers are advised to guide candidates to improve reading comprehension prior to attempting to answer question. Learners must carefully analyse what a question requires so that a full answer may be provided. Confusing terms, such as 'well-controlled' with 'not well-controlled', could lead to the learner not scoring any marks to scoring full marks.
- (d) Teachers must be able to clearly illustrate to learners the need for comparison of unit costs over the past two financial years to determine costs that are well controlled and those that are not. Past papers are a reliable resource of revision activities as they illustrate different ways changes in unit cost can be commented on.
- (e) Teachers must guide learners on the commenting to explain the *break-even point*. Based on the marks allocated, learners are expected to not only comment on the break-even point for the current financial year and the production of the current financial year for 2 marks, but it will also include year to year figures for 4 marks. In both cases, learners must indicate whether a profit or loss is yielded. Short tests can be developed to enhance these commenting skills.

### QUESTION 4: BUDGETING AND PROBLEM SOLVING

This question proved to be well managed in this examination. The general trend persists of candidates being more proficient in performing basic calculations while finding the analysis and interpretation more challenging. While candidates were able to take full advantage of the marks on offer for basic calculations, the inappropriate responses to the interpretative sub questions indicate that this aspect of the topic is still not given enough attention during class time or revision.

### Common errors and misconceptions

- (a) Completing the Debtors Collection Schedule in Q4.1.1 (6 marks) was well answered by the majority of candidates as they scored full marks.
- (b) Of the calculations tested in Q4.1.2 (13 marks) candidates performed very well in the calculation of the salaries of the sales manager and sales assistants as this calculation has appeared in most past papers. Candidates were unable to use the October 2025 sales figure to calculate the bad debts for January 2025, but earned a part mark for the reference to 6%. Weaker candidates displayed a lack of mathematical skills to determine the percentage used to calculate advertising.
- (c) The requirements of a fixed stock base replenishment policy (total purchases = cost of sales) remains a challenge for many candidates. The calculation of the cash purchases was poorly calculated in Q4.1.3(i). The incorrect amount of total purchases was used to calculate payment to creditors during January 2026 in Q4.1.3(ii).
- (d) Q4.1.4 required candidates to calculate the amount of fixed deposit that will mature. Candidates were unable to use the interest earned to work backwards to the fixed deposit amount.
- (e) In Q4.2.1 (2 marks) most of the candidates who attempted the question scored full marks. While candidates were able to identify the reason for the decrease in the number of units sold in October (Q4.2.2(i); 2 marks) they were unable to calculate the cash that was lost in the October 2025 sales (Q4.2.2(ii); 2 marks). In Q4.2.3 candidates were also able to provide benefits that will be forfeited if they do not pay creditors.
- (f) Q4.2.4 focused on the decision of the owner to introduce a commission in addition to a reduced fixed salary. Although this was obvious, the follow-up questions were based on the premise that candidates recognised this decision. A large percentage of candidates only focused on the reduced salary and they were, therefore, not able to provide a complete explanation of why salespersons were not satisfied.

### Suggestions for improvement

- (a) Budgeting content (Cash Budget and Projected Statement of Comprehensive Income) is covered in Grade 11, while the Grade 12 curriculum is expected to focus more on analysis and interpretation. All aspects completed in Grade 11 must be revised by teachers before they go on to interpretation. Teachers should teach both aspects of budgeting (Cash Budget and Projected Statement of Comprehensive Income) simultaneously so that learners identify the similarities and differences between both forms of budgeting. Teachers should reinforce such similarities and differences in Grade 12.
- (b) The easy part of the budget question will include basic calculations covered in Grade 11. The results show that this is generally well managed, although weaker candidates did not take advantage of all the easier calculations that appear on a regular basis. At times, different calculations are introduced to increase the challenge. These may include the calculation of fixed deposit amounts, advertising and bad debts. Teachers need to thoroughly complete calculations and show learners how to show their workings so that mathematical skills of learners can be improved. Short activities on the different types of calculations must be designed and used on an on-going basis.
- (c) The interpretative subquestion on budgeting will always focus on specific scenarios. A common trend in recent times is to analyse budgeted vs actual figures. This is the deep analysis portion that required insight and understanding. Specific terminology must be clearly explained so that comments are relevant and appropriate. Past examination papers provide a range of such examples.

# CHAPTER 3

## AGRICULTURAL SCIENCES

The following report should be read in conjunction with the Agricultural Sciences Paper 1 and Paper 2 question papers for the NSC November 2025 examinations.

### 3.1 PERFORMANCE TRENDS (2020–2025)

The number of candidates who wrote the Agricultural Sciences examinations in 2025 increased by 6 753, compared to that of 2024.

There was a significant decrease in the pass rate this year. Candidates who passed at the 30% level decreased from 86,9% in 2024 to 81,2% in 2025. There was a corresponding decline in the pass rate at the 40% level from 65,1% to 56,7%.

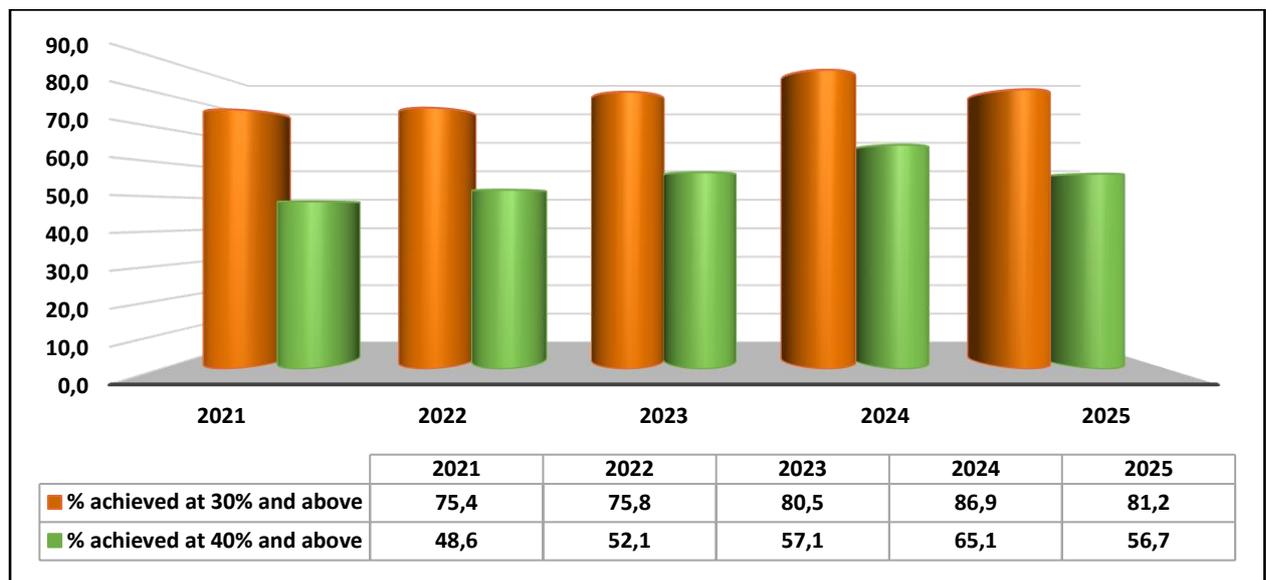
The percentage of distinctions over 80% decreased from 3,4% in 2024 to 1,5% in 2025 despite the increase in the size of this cohort.

The various intervention strategies employed by teachers, subject advisors and provincial education departments in 2025 yielded the results presented above. It is for this reason that further scrutiny should be instituted to understand caused the decrease so that relevant and effective strategies can be designed and implemented.

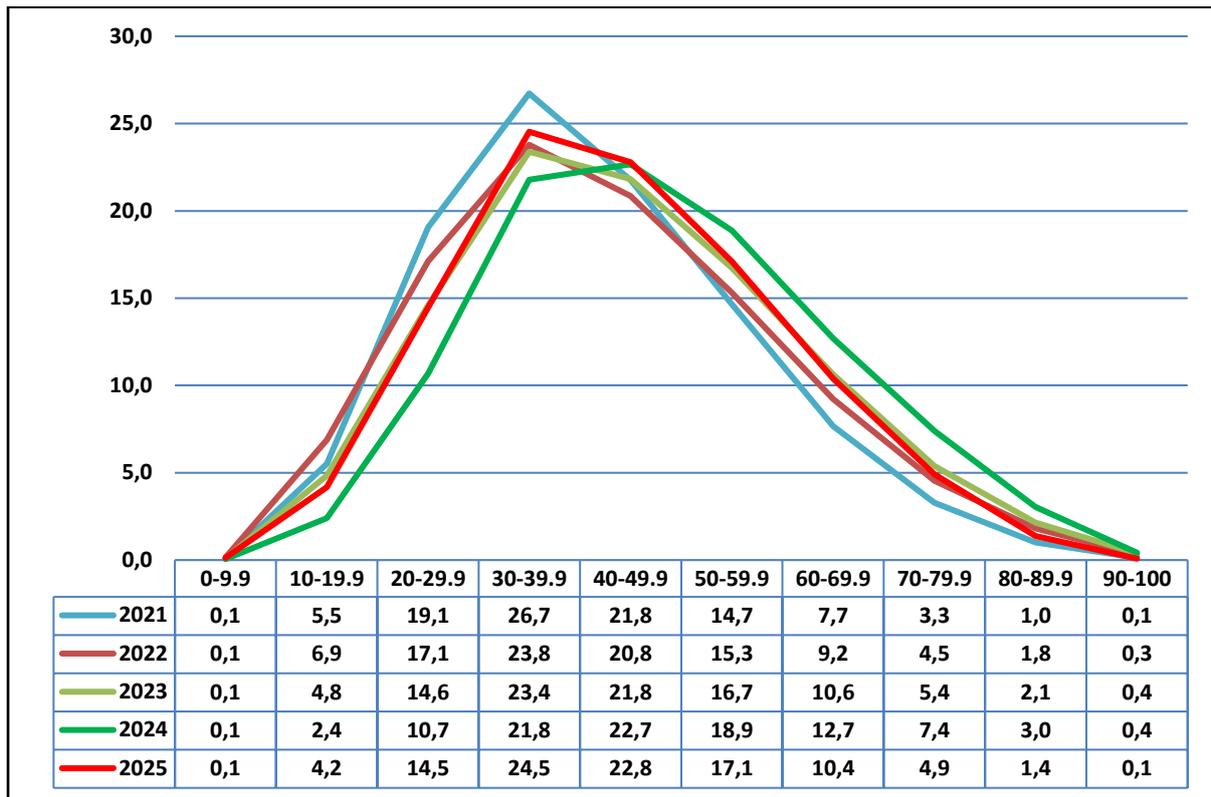
**Table 3.1.1 Overall achievement rates in Agricultural Sciences**

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2021	123 990	93 447	75,4	60 308	48,6
2022	125 353	95 070	75,8	65 251	52,1
2023	115 894	93 279	80,5	66 175	57,1
2024	114 261	99 257	86,9	74 371	65,1
2025	121 014	98 286	81,2	68 596	56,7

**Graph 3.1.1 Overall achievement rates in Agricultural Sciences (percentage)**



**Graph 3.1.2 Performance distribution curves in Agricultural Sciences (percentage)**



### 3.2 OVERVIEW OF CANDIDATE PERFORMANCE: PAPERS 1 AND 2

#### General comments

The 2025 cohort could have benefited greatly from a normal year of schooling, free from major issues that could have prevented them from accomplishing their goals. However, candidates' performance might have been compromised due to the examination timetable which scheduled Paper 1 in the afternoon after writing either Mathematics or Mathematical Literacy P2 and thereafter almost 3 weeks lapsed before P2 was written. The scheduling of the paper in the afternoons had an impact especially on those candidates whose performance was average or below.

It should be noted that candidates were unable to deal effectively with the demands of Questions 1.3 and 1.4 which required basic subject terminology. Language barriers continued to pose a challenge, as candidates were unable to respond adequately to questions that required comprehension and evaluation skills.

Despite the subject-specific language used in Agricultural Sciences, weaker and average candidates continued to experience difficulty in understanding the requirements of questions. They tended to provide incomplete or unclear responses to questions requiring explanations or comments, often relying on the commonly used responses from previous marking guidelines and using them inappropriately in different contexts. Some candidates even gave responses using concepts unrelated to the content topics in a specific paper.

Candidates were unable to analyse the relevant information provided in answering specific subquestions. This was especially relevant in calculations of the DNNs and DE, Capital and Genetics sections of the papers. Only the more capable candidates were able to extract and

respond to the relevant information, while weaker candidates found this process challenging, as they were often unable to comprehend the questions and to respond as expected.

There was a decline in the drawing of the graph that had two variables on the Y-axis, which was evident in Paper 2, and resulted in most candidates not being able to score the full 6 marks. Those who managed to draw it obtained a maximum of 4 marks derived from identifying the independent variable, type of graph, the units and the heading in both papers.

### General suggestions for improvement

Despite a stable performance noticed in some questions, several factors need to be improved in both papers in 2026:

- (a) **Basic concepts and terminology:** Learners need to be exposed to the basics of each topic for them to engage effectively with the content in that topic. The process of conceptualising and understanding these concepts is more than mere rote-learning of the definitions. Terminology should form an integral part of teaching and learning and needs to be emphasised regularly. Teachers are advised to make the teaching of terminology interesting by engaging learners in the identification of key concepts for each topic. The learners should then be taught to formulate shorter definitions, based on the context. Teachers can also make use of short question tests on these terms using previous examination papers.

Teachers are advised to use the following strategies to improve the teaching of basic concepts and terminology:

- Engage learners in the identification of new terms and sourcing of explanations from textbooks.
  - Use new concepts and terms in sentences and in short scenarios to enhance learners' understanding.
  - Learners should be directed to first identify the new concepts for each topic and then to compile a glossary of terms in their notebooks on completion of the topic, with a brief but clear definition of each term or concept. Keep a separate notebook for this purpose. By the end of the year, all learners should have a comprehensive glossary of all the relevant terms and concepts pertaining to each topic.
  - Agricultural Sciences terminology should be assessed frequently, using different forms of informal activities.
  - Challenging or confusing terminology could be explained by using illustrations and/or posters. These posters can be pinned on notice boards in the classroom so that learners are exposed to them on a regular basis.
  - Spelling tests and word cards can be utilised to train learners on how to spell complicated terms.
- (b) **The importance of formative and topic testing:** Tests should assess learning after every topic has been covered to provide remedial measures where necessary. Self-assessment and peer assessment, with immediate feedback on errors, provides learners with an opportunity to increase their understanding of the problem. They also become exposed to valid alternative responses and different, easier approaches to solve problems.
- (c) **Enhancing learners' skills in accurately interpreting specific subquestions and using information that is relevant:** It is essential that learners have a good understanding of the instructional verbs, as emphasised in the *Examination Guidelines*. Teachers must explain the context in which key verbs such as 'deduce',

'justify', 'explain' and 'suggest' are used and the expected depth required by each question. The marking guidelines of past examination papers can be used to show how the responses to similar questions can differ because of the key instructional verb used in the question. A variety of instructional verbs must be used in both informal and formal assessment tasks. It is recommended that these informal tasks lean mostly towards developing conceptual skills, as this will enable learners to develop a better understanding of the requirements of each question.

- (d) **Skills to be assessed:** Assessment should be of such a nature that it challenges the learners' ability to think beyond what is presented in the textbooks or by the teacher. Learners need to be guided on how to process data presented in different forms, such as tables, graphs, calculations or scenarios. These areas have proven to be challenging for learners. Teachers need to sharpen their learners' analytical skills by exposing them to challenging informal and formal tasks.
- (e) **Real-life scenarios:** Learners show a serious deficiency in the processing of application questions, which indicates a lack in the depth of the practical side of the subject. Learners need to be exposed to more real-life agricultural situations through visits to sites of practice. Where a practical demonstration is not possible, the use of videos that simulate the actual practice is recommended to enhance intensive learning.

Teachers are advised to include sources such as pictures, scenarios, case studies and short statements in their informal and formal assessment tasks, and to demonstrate to learners how such questions should be approached. These tasks should test the application of theoretical knowledge into real farming practices. This could be done by first reading and/or analysing the source, guiding learners on how to find clues and thereafter associate the key information discovered, before finally attempting to answer the actual questions. In some instances, learners can be requested to formulate their own questions based on the source. This practice will allow learners to analyse the source critically. Teachers can then develop follow-up questions to extend learners' understanding of the content.

- (f) **Enhancing the interpretation of calculated values:** Agricultural Sciences examination papers contain some simple mathematical processes, e.g. drawing graphs, calculating percentages, conversion of values, expression into relevant units, using formulae and substituting values. Even though learners showed an improvement in substituting from the formula, they were challenged when they were instructed to use a specific step of the formula that is only applicable to a specific context. They showed that they had been trained to follow routines in processing calculations.
- (g) **Teachers are advised to give regular informal tasks on calculations incorporating the different versions:** Teachers should not assume that learners have successfully engaged with these skills in other subjects or that learners can successfully transfer these skills from other subjects to the study of Agricultural Sciences. Teachers are advised to first indicate the importance of the various calculations with regard to farming to their learners before showing them the actual skill of performing the calculations by applying the information that is given. Moreover, teachers are also advised to mark such calculations accurately by emphasising the conversions, units, substitutions of values and formulae.
- (h) **Use of past NSC papers:** Learners must have access to past examination papers, but they should also be alerted to their limitations and be cautioned on the over emphasis of the use of previous years' papers. It should be noted that although

questions in past papers may cover the same content, they may *have different foci*, e.g. a question which asks for a *comment* requires a different response than a question which asks for a *justification* or *suggestion*. Teachers are advised not to engage in whole question paper revision; it is better to consolidate questions from various papers into a question bank for each topic and then engage with question revision.

- (i) **Reference to the CAPS, Examination Guidelines and previous Diagnostic Reports:** Teaching and assessment must be informed by the content prescribed in the CAPS and the approach outlined in the *Examination Guidelines*. A holistic understanding of all topics is essential. It is also important that teachers use a variety of the prescribed textbooks to source information and then consolidate it for learners. It is imperative that teachers take cognisance of comments and recommendations made in previous diagnostic reports.

### 3.3 OVERVIEW OF CANDIDATES' PERFORMANCE IN PAPER 1

#### General comments

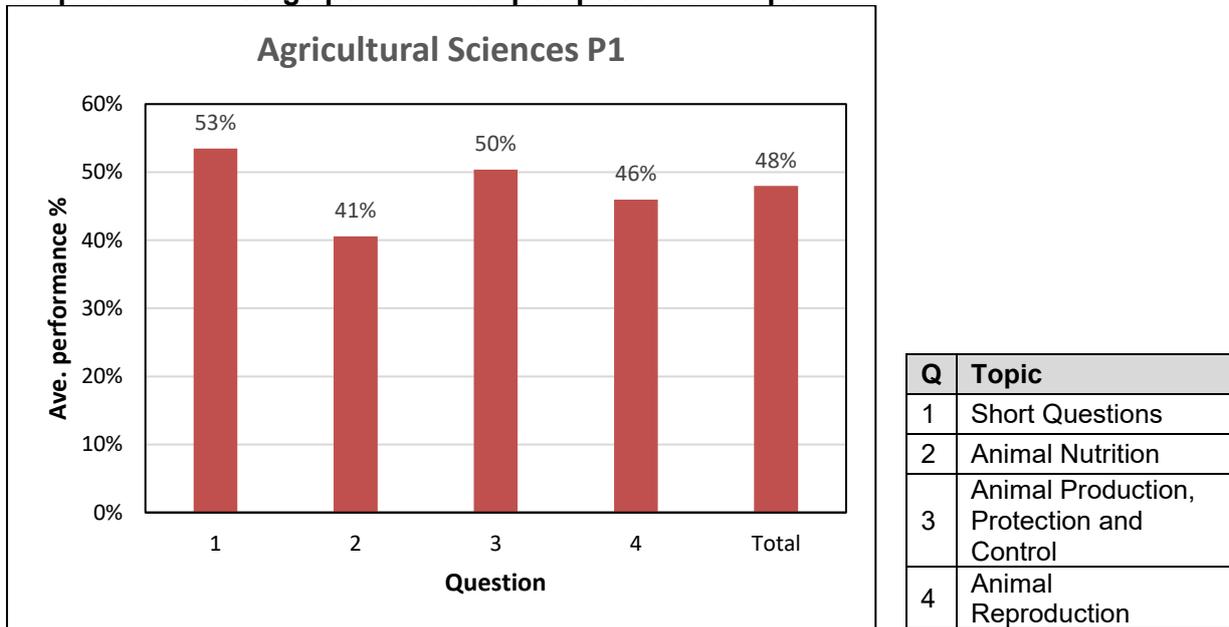
- (a) There was an improvement in candidates' performance in Paper 1 compared to 2024. The improvement resulted from a general increased performance in Q1, Q3 and Q4.
- (b) Regardless of the improved performance in Q1, candidates continued to experience challenges particularly in Q1.3, where they were expected to provide a term for a description and Q1.4, where they had to replace the incorrect underlined word with a correct term.
- (c) Question.2 was the only question that showed a decline in performance. The decline could be attributed to these subquestions: Q2.1.1, 2.1.2, 2.1.5, 2.2.2, 2.2.3, 2.2.4, 2.3.1, 2.3.4, 2.4.1, 2.4.2, 2.6.2, 2.6.3(b) and 2.7.1, that were noted as problematic.
- (d) The question on animal nutrition was a challenge in 2024 and continued to pose a challenge to the candidates in 2025.
- (e) It was noted that calculations that were part of the content assessed in Q2, posed a challenge to most candidates, especially since they were structured and phrased differently from the previous years' papers.
- (f) Even though the drawing of graphs has remained stable in recent years, there were still some areas of concern such as:
- Incorrect labelling of axes (x- and y-axes swapped)
  - Incomplete headings (showing only one variable)
  - Graph without a zero baseline
  - Absence of a full correct unit (billion/ml)
  - Drawing of a histogram instead of a combined graph
- (g) It was observed in Q4.5 that most candidates struggled to explain how a pedometer and tail chalking work in heat detection in cows. In most cases they tended to explain the equipment, 'pedometer', and the technique of tail chalking but struggled to explain how these techniques inform farmers that cows are ready to be serviced by a bull or to be inseminated.

- (h) As was the case in previous years, questions requiring reasoning, motivation or justification were still poorly answered by most candidates. This was an indication that candidates had not been sufficiently exposed to these types of questions in the classroom.
- (i) The language of learning and teaching remained a challenge for most candidates. They could not respond appropriately to the instructional verbs used in questions.

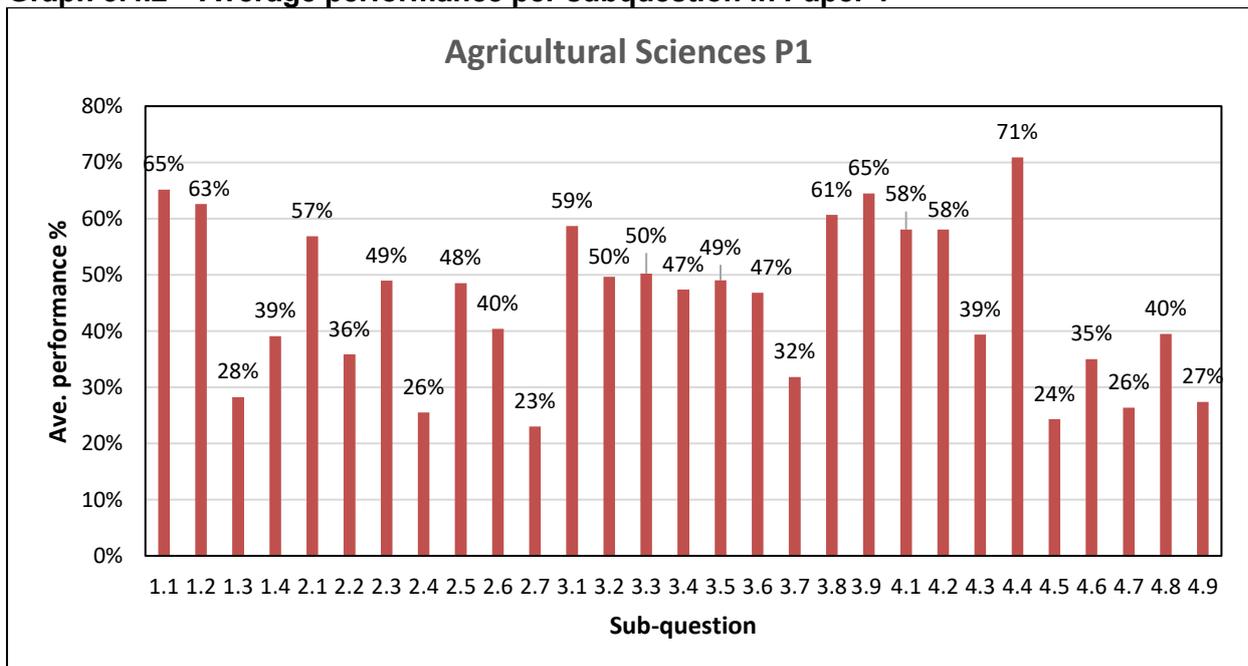
### 3.4 DIAGNOSTIC QUESTION ANALYSIS OF PAPER 1

The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful in assessing the relative degree of challenge of each question as experienced by candidates.

**Graph 3.4.1 Average performance per question in Paper**



**Graph 3.4.2 Average performance per subquestion in Paper 1**



Sub-Q	Topic	Sub-Q	Topic
1.1	Multiple Choice	3.5	Basic guidelines for handling sheep
1.2	Matching Items	3.6	Identification and classification of parasites
1.3	Terminology	3.7	Measures to treat plant poisoning
1.4	Replacement of incorrect words	3.8	Animal diseases
2.1	Feed intake, feed flow and digestion	3.9	Methods of administering medication
2.2	Accessory digestive glands	4.1	Male reproductive system
2.3	Components of feeds	4.2	Male reproductive cell
2.4	Digestibility of a feed	4.3	Hormonal levels in cattle during the reproductive cycle
2.5	Nutritive ratio of a feed	4.4	Bar graph on semen volume and sperm cell concentration per ejaculate
2.6	Types of feeds	4.5	Techniques and instruments used to detect oestrus in cattle
2.7	Energy value of feeds	4.6	The process of artificial insemination
3.1	Farming systems	4.7	Multiple births
3.2	Factors to increase animal production	4.8	Cloning
3.3	Housing facilities	4.9	Stage and reasons for termination of pregnancy
3.4	Tools and equipment to handle farm animals		

### 3.5 ANALYSIS OF LEARNER PERFORMANCE IN INDIVIDUAL QUESTIONS IN PAPER 1

#### QUESTION 1: SHORT QUESTIONS (ANIMAL SCIENCES)

##### Common errors and misconceptions

- In Q1.1.5 most candidates disregarded the word NOT in the question and opted for the options that referred to normal behaviour in large animals whereas the question asked for behaviour that is NOT normal.
- In Q1.1.8 some candidates struggled to choose the preventative measure applicable to *internal parasites* as they opted for the statements with spraying of medication, which is a preventative measure of *external parasites*.
- In Q1.2.1 a few candidates did not know that deformation and ulceration of the *cornea* of an eye is a result of *vitamin A* deficiency. Some linked the deficiency to *vitamin B<sub>1</sub>* or *B<sub>2</sub>* and others linked it to both *vitamin B<sub>1</sub>* and *B<sub>2</sub>*.
- In Q1.3.1 most candidates incorrectly referred to the protein as the *egg protein*, an example of a food with protein containing all essential and non-essential amino acids, instead of *ideal protein*.
- In Q1.3.4 most candidates confused *milk let-down* with *lactation* which is the whole process. These candidates could not differentiate between an enzyme *cellulase* and a carbohydrate *cellulose*.

- (f) In Q1.4.5 some candidates wrote *yellow body* which is a description of a structure that develops in the ovary after *ovulation* instead of *corpus luteum*.

### Suggestions for improvement

- (a) Teachers are expected to compile a glossary of terms and concepts for each topic to be taught in order to master Section A terminology.
- (b) Development of interesting games, like word puzzles, identification cards and *PowerPoint* presentations for the teaching of key concepts and improving the spelling of these concepts should be considered. Spelling tests should be considered, especially for concepts that are not easy to pronounce or write out.
- (c) Teachers should incorporate a daily vocabulary routine focusing on spelling, meaning and application of agricultural terms using word walls, terminology flashcards and concept booklets.
- (d) Teachers should bring feed samples like maize, lucerne and soya beans, to assist learners to classify different feeds.
- (e) Teachers are expected to ensure that learners understand the concepts and do not just memorise them.
- (f) Regular administration of informal tasks on concepts and terms is recommended.
- (g) Teachers should form a cohesive unit in their clusters. They can support one another by addressing challenging topics and by suggesting different approaches to teaching a topic so that it makes learning easy and enjoyable. These cluster units could also set common assessment tasks collectively.
- (h) Provincial coordinators, together with teachers, need to prepare revision packs that cover all the topics. Teachers should use material from these packs as informal tasks, in class revision sessions and as mock examinations.

### QUESTION 2: ANIMAL NUTRITION

#### Common errors and misconceptions

- (a) In Q2.1.1 most candidates provided *non-ruminant* as the answer instead of a *pig*. This is an indication that most learners cannot differentiate between the type of a farm animal and the name of the farm animal.
- (b) In Q2.1.2 many candidates did not extract the reason for 'pig' from the flow chart that was provided. Instead they indicated that it is a *monogastric* animal. These candidates failed to read and interpret the stimulus carefully and make correct deductions.
- (c) In Q2.1.5 some candidates wrote the function of *bile* instead of that of *hydrochloric acid*. They confused these two secreted substances. This might be attributed to the fact they rushed to answer before understanding the question in full.
- (d) In Q2.2.2 most candidates defined *pancreatic juice* as an enzyme found in the pancreas. They could not understand that the pancreas secretes pancreatic juice containing enzymes.

- (e) In Q2.2.3 some candidates struggled to give the function of the liver. They indicated that the liver stores bile, while in fact it secretes bile. This indicated that these candidates' did not understand that the liver is a gland. Glands do not store, they secrete.
- (f) In Q2.2.4 most candidates were unable to explain the importance of *emulsification*. Many simply defined the term or stated that it improves absorption, failing to indicate that the critical function of breaking down fat globules into smaller droplets is to increase the surface area for the enzyme lipase.
- (g) In Q2.3.1 many candidates identified *calcium* instead of *sodium* as the mineral controlling the intake of a stock lick. Some even listed protein, indicating confusion between organic nutrients and minerals.
- (h) In Q2.3.4 the majority of the candidates identified calcium as the mineral preventing *osteomalacia*, but they were unable to link it to strong bone formation.
- (i) In Q2.4.1 many candidates could not calculate the dry matter absorbed in a feed. Other candidates could not subtract moisture from dry matter.
- (j) In Q2.4.2 some candidates had difficulty in pinpointing a specific animal-related factor impacting *digestibility*. They provided non-specific responses like type of feed, and age of the plant. This indicated a limited understanding of the animal-related factors and feed-related factors.
- (k) In Q2.6.2 most candidates could not give the importance of *roughages* for young animals; instead they gave answers like growth, energy and health. It is evident that they did not know the significance of roughages in the development of *reticulo-rumen* of young ruminants.
- (l) In Q2.6.3(b) many candidates could not provide examples of *protein-rich roughages*, especially those candidates who might have given the wrong answer to Q2.6.1.
- (m) In Q2.7.1 most candidates could not calculate the energy value of feeds as they showed a lack of knowledge of the formula  $DE = GE - \text{Energy lost through faeces}$ . These candidates subtracted percentages given directly from the feed.

### Suggestions for improvement

- (a) Teachers should use labelled diagrams and flow charts showing where each digestive gland acts and what it secretes.
- (b) Teachers should use simple analogies like comparing bile to soap, breaking grease into smaller particles; they can also show videos or animations of fat emulsification to explain the concept visually.
- (c) Teachers should emphasise the specific role of hydrochloric acid in classroom discussions and provide relatable examples to clarify its function.
- (d) Learners should be trained to understand and to use both formulae for calculating the nutritive ratio.
- (e) Teach learners to structure calculations clearly, starting with formula, substitution and then the answer.

- (f) Use classroom demonstrations with actual feed samples to show moisture against dry matter.
- (g) Teachers should compare digestive systems of adult and young ruminants in relation to feeds when teaching digestion.
- (h) A table on the components of feeds should be accompanied by an example of each component of feed and type thereof.
- (i) Carefully planned practical investigations and questionnaires will assist learners in developing an in-depth understanding of the content.
- (j) Giving more exercises with different scenarios is imperative to make learners aware of how to respond to questions.
- (k) Teachers are encouraged to give regular informal assessment on calculations, providing guidance on the use of correct formulae and following the correct steps when substituting values. This will develop the learners' ability to make the correct calculations.
- (l) The implications of the calculated values should be explained to learners. This will enable learners to have a better understanding of the application of the results.

### **QUESTION 3: ANIMAL PRODUCTION, PROTECTION AND CONTROL**

#### **Common errors and misconceptions**

- (a) In Q3.1.1 many candidates confused *farming systems* with *production systems*. In picture A they wrote extensive production system, and intensive production system for picture B. Some incorrectly spelt *subsistence* as *substance*, which has another meaning and cannot be credited.
- (b) In Q3.1.2 many candidates incorrectly justified *commercial* as *large-scale* farming, and *small-scale* for *subsistence* farming.
- (c) In Q3.2.1 some candidates did not correctly align the pictures to factors to increase production; instead, they wrote what was in the picture, for example *feedlot* instead of *nutrition* for picture A, and *giving birth* or *mother feeding* the calf for picture B instead of *reproduction* or *breeding* as a factor to increase production.
- (d) In Q3.2.2 most candidates did not realise that the question asked for factors that would adversely affect only a young calf. They also referred to factors like theft that would also adversely affect adult animals.
- (e) In Q3.3.1 a few candidates confused a *holding pen* in picture A with a *holding shed*.
- (f) In Q3.3.2 most candidates provided the purpose of a *farrowing pen* instead of *bedding*; for example they talked of separation of sows and piglets which is the purpose of a farrowing pen. This showed a lack of understanding of the use of bedding.
- (g) In Q3.3.3 some candidates identified the facility in picture C as a *feedlot* rather than explaining the purpose as asked.

- (h) In Q3.4.1 most candidates incorrectly identified the tool or equipment that makes a loud noise to steer pigs as a *plywood board* instead of a *plastic shaker*. This was a clear indication that candidates were unfamiliar with a plastic shaker.
- (i) In Q3.4.4 most candidates incorrectly aligned the statement with a *halter* instead of *casting harness*.
- (j) In Q3.5 some candidates wrote guidelines for transporting animals while others gave the reasons for handling sheep rather than basic guidelines for handling sheep.
- (k) In Q3.6.1 some candidates incorrectly identified the parasite as a *liver fluke* or a *roundworm* instead of a *tapeworm*.
- (l) In Q3.6.3 most candidates could not differentiate between the parasites based on their life cycles; instead, they incorrectly classified them as internal and external parasites. Some wrote three host and four host instead of two host and one host.
- (m) In Q3.7.1 some candidates provided measures to prevent plant poisoning instead of treatment measures.
- (n) In Q3.7.2 most candidates gave the role of the farmer in animal health rather than the role of the state, as required by the question.
- (o) In Q3.8.2 many candidates confused *red water* with *heartwater* despite the unique characteristics given and the specific tick transmitting the red water.
- (p) In Q3.9 some candidates wrote tools of administering medication like dosing gun instead of a method to administer medication.

### **Suggestions for improvement**

- (a) Teachers need to train learners to read instructions preceding each question carefully, paying attention to key words, such as 'Refer to the diagram', or 'purpose'.
- (b) Learners should be exposed to picture-based activities during lessons to avoid memorising specific images.
- (c) *PowerPoint* slides with pictures and videos on the facilities and tools could be prepared and used in the classroom to arouse the interest of the learners.
- (d) Learners should be exposed to a variety of questioning styles and educators should make use of multiple pictures and real-life examples when teaching farming systems.
- (e) Educators should use flow chart diagrams when teaching life cycles of parasites to assist learners to identify the number of hosts involved in the life cycle.
- (f) Teaching should focus on the differences between major tick-borne diseases to assist learners' knowledge of diseases transmitted by different ticks.
- (g) Intensive revision of work using charts, scenarios and tables on diseases and parasites is necessary as the information is vast and likely to cause confusion.

## **QUESTION 4: ANIMAL REPRODUCTION**

### **Common errors and misconceptions**

- (a) In Q4.1.3 many candidates failed to name congenital defects; instead, they described what congenital defects are. These candidates thought that describing the abnormality was equivalent to giving the defect. The question required a term, not a description.
- (b) In Q4.3.1 most candidates provided *day 6* instead of *day 2* as they misinterpreted the phase towards the onset of the second ovulation. Many interpreted onset as the end rather than the beginning, leading to incorrect deduction of the day. Candidates struggled with this question mainly because they misinterpreted the graph or did not understand hormone level changes near ovulation.
- (c) Many candidates failed in Q4.3.2, because they did not understand that progesterone levels drop if there is no pregnancy, indicating that the cow was not pregnant.
- (d) In Q4.3.3 most candidates could not indicate that the corpus luteum regresses if there is no pregnancy, leading to decreased levels of progesterone.
- (e) In Q4.3.4 some candidates provided *di-oestrus* as an answer instead of *met-oestrus*. This suggests that candidates normally memorise oestrous cycle phases without fully understanding their sequence or characteristics.
- (f) An inability to follow instructions in Q4.4 (drawing of a graph) was a common problem for those who failed to score the total mark. Common errors were the following:
- Incorrect labelling of axes (x- and y-axes swapped)
  - Incomplete headings (showing only one variable)
  - Graph without a zero baseline
  - Absence of a unit (billion/ml)
  - Drawing of a histogram instead of a combined graph
- (g) In Q4.5.1 responses of some candidates indicated that these candidates were not familiar with a *pedometer* and its use in detecting oestrus in cattle. Others wrote that a *speedometer* is used to measure the distance walked by animals instead of recording the spike in movement and temperature that indicate restlessness, which is a sign of oestrus.
- (h) In Q4.5.2 most candidates wrote that *tail chalking* is used to mark animals that are sick and some wrote that it is applied on the vulva of a cow to check if the bull has mounted. This indicates a lack of knowledge of the use of the practical methods dairy farmers can adopt to identify cows in oestrus.
- (i) In Q4.7.1 many candidates simply defined *fertilisation* stating that two sperm cells will fuse with a single ovum, instead of two different ova fertilised by two different spermatozoa. This showed poor understanding of multiple births.
- (j) Some candidates gave *fertilisation* or *implantation* as the answers to Q4.7.2, instead of *pregnancy* or *gestation*. This clearly indicated that candidates could not interpret the diagram on multiple births.
- (k) In Q4.8.1 many candidates wrote *cloning* instead of naming the specific type of this reproductive technique. Candidates assumed the scenario required cloning, believing that the term was sufficient.
- (l) In Q4.9.1 the responses of most candidates to this question included *dystocia* and *abortion* among others. While the picture of the foetus might have convinced

candidates to arrive at their answers, the question was about stages of pregnancy and not pregnancy problems.

### Suggestions for improvement

- (a) Learners should be taught that *congenital defects* are abnormalities present in an animal arising from birth.
- (b) Teachers are encouraged to teach learners how to analyse graphs, including those on hormonal levels, to know that equilibrium results when the line on any graph intersects with another.
- (c) Learners should be explicitly taught how to read graphs, identify axes, trends, peaks, and links to physiological events.
- (d) Learners should be taught hormonal and reproductive changes that take place from one heat period to the next, based on the movement of oestrogen and progesterone levels.
- (e) Schools are urged to invest in visual learning aids such as charts, posters or models to create low-cost visuals.
- (f) Learners should also be taught the *role of hormones in follicular phases* where corpus luteum regresses and forms again in the following cycle.
- (g) Learners should be taught the use of *pedometer* in relation to the cow's restlessness because of oestrus based on the spike in movement and temperature. *Tail chalking*, on the other hand, will be removed from the tail of a mounted cow which is on heat.
- (h) Teachers should provide bridging lessons for learners without a Life Sciences background to strengthen biological understanding.
- (i) Teachers are expected to expose learners to more illustrations detailing multiple births where more than one egg is fertilised.
- (j) Teachers are further encouraged to reinforce foundational concepts such as gametogenesis, types of cell division, stages of pregnancy, hormonal regulation and twinning.
- (k) Learners should be taught that *cloning* is a broad term for developing genetically identical organisms, while *reproductive cloning* specifically means creating a whole new organism which is a genetic duplicate of the other.
- (l) Learners should be taught to distinguish between birthing problems and reasons for abortion or termination of pregnancy.
- (m) Teachers should develop a classroom routine where learners underline key words before attempting any question.
- (n) Enrichment and enhancement material should be sourced from various resources, such as the slides from the ASAAE software.
- (o) Standardised formal tasks should be prepared, with the aim of raising the level of questioning and preparing the learners for questions that require analysis and reasoning.

- (p) Learners should be assisted with different reproductive techniques and the processes involved within each reproductive technique.

### 3.6 OVERVIEW OF CANDIDATES' PERFORMANCE IN PAPER 2

#### General comments

- (a) Generally, candidates' performance in 2025 in this paper declined when compared to 2024, except for Q2 which showed a slight improvement of 1%. A noticeable decline of 14% was recorded in Q3 and 11% in Q4.
- (b) In 2025, candidates' responses indicated that most of them still struggled with questions that required comprehension and application of knowledge, as well as questions based on sources.
- (c) Most candidates struggled to provide accurate answers for Q1.3.1 (*price fluctuation*), Q1.3.3 (*genetics*), 1.3.4 (*aneuploidy*) and Q1.4.5 (*homozygote*)
- (d) In Q2.1.3 some candidates confused *market equilibrium* with *equilibrium price*.
- (e) Some candidates failed to read the question in Q2.2.2 fully. As a result they provided responses that included *advertisement* even though the question suggested methods other than *advertisement*.
- (f) Most candidates managed to identify by guessing the product in Q2.3.1, whose demand was price inelastic between the avocado and maize, but struggled to provide a reason in support of the chosen product in Q2.3.2.
- (g) Candidates found it challenging to plot the graph in Q 2.5.1 that had three variables with two on the same axis (Y-axis).
- (h) In Q2.7.1 the problem was the interpretation of the flow diagram; as a result, candidates struggled to identify the phases of an entrepreneurial process.
- (i) In Q2.7.2 instead of defining the concept *entrepreneurship* most candidates defined the *entrepreneur*.
- (j) Most candidates could deduce in Q2.8.1 what potential investors would look for in a business plan. They struggled with the reasoning and application of knowledge.
- (k) Most candidates could not respond deduce the labour challenges in Q3.2.2 appropriately.
- (l) In Q3.3 candidates struggled to identify the components of the contract that were represented by the items.
- (m) In Q3.4.2 most candidates struggled to explain the type of credit that was used to source the movable capital.
- (n) Candidates had a challenge in Q3.6 to identify the different external forces affecting the business.

- (o) In Q4.1.1 some candidates struggled to interpret the crossing of the two cattle breeds; as a result they found it difficult to answer the subsequent questions, Q4.1.2 and Q4.1.4.
- (p) Some candidates confused the *genotype* with the *phenotype*.
- (q) Some candidates were challenged by simple mathematical calculations that required an understanding of fractions, and working from a fraction to whole numbers in Q4.2.2 and Q4.2.3.
- (r) The question style in Q4.3 required the application of knowledge which was a challenge for most of the candidates.
- (s) In Q4.3.2 some candidates were unable to differentiate between the *cause* and the *effect*; as a result, they were unable to tell the difference between *polygenes* and *polygenic inheritance*.
- (t) In Q4.4.1 some candidates could not differentiate between the *genetic* causes of variation and the *environmental* causes.
- (u) The interpretation of the pedigree diagram in Q4.5 remained problematic, even though similar questions have been asked in previous years.
- (v) Q4.6.1 was another question where the majority of the candidates showed they were unable to formulate a hypothesis.
- (w) Q4.6.2 was poorly attempted even though the question itself provided clues towards formulating the answer.
- (x) Most candidates scored only 1 mark in Q4.6.3 and Q4.6.3, even though these questions were straightforward and very direct.

### **Suggestions for improvement**

- (a) Teachers are encouraged to base their teaching on the *CAPS* to establish the expectations of learners.
- (b) Teachers should expose learners to a variety of cognitive demands through regular and consistent informal assessment tasks or activities to improve the learners' abilities in dealing with all the questions.
- (c) Setting of high-quality tasks that are pitched at various levels of difficulty would assist learners to respond precisely to data-response questions that require interpretation and application of knowledge.
- (d) Learners must be exposed to simple mathematical calculations to work out fractions and their conversions to whole numbers when dealing with crossings.
- (e) It is recommended that all calculations commence with the correct formula/formulae, after which the correct substitution should be done, followed by the actual calculation and ultimately the correct answer.
- (f) Although learners might have access to only one textbook, teachers should acquaint themselves with and use several available textbooks and other resources

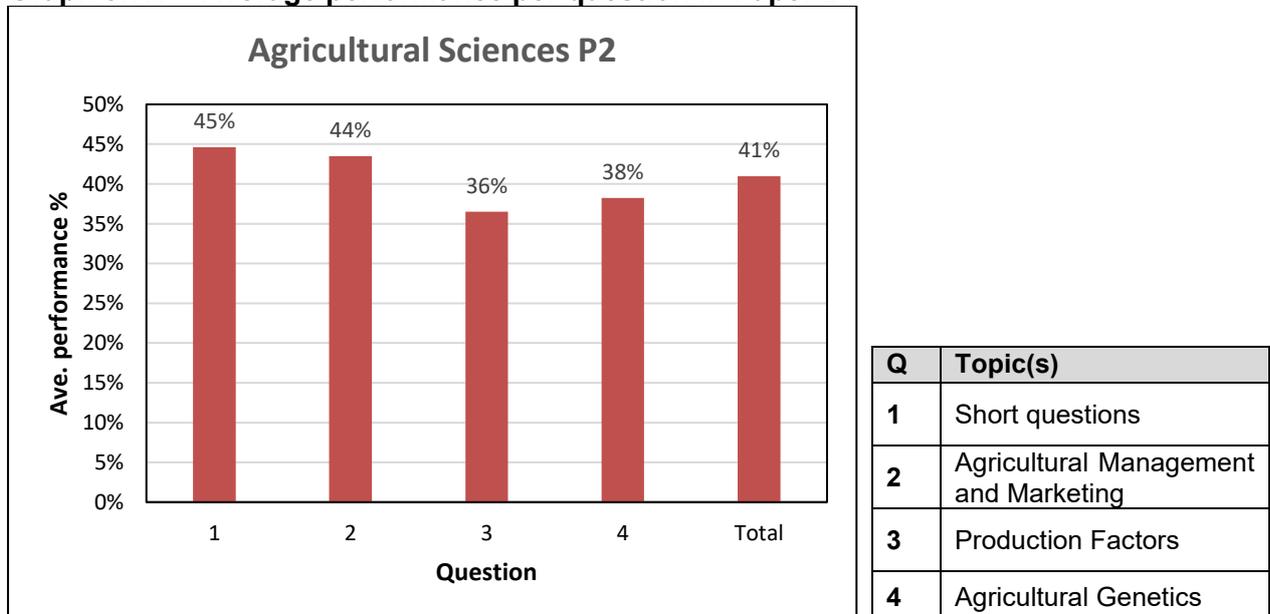
in their lesson preparation. Teachers and learners will thus be exposed to a wide range of possible content knowledge.

- (g) Teachers need to broaden their knowledge and conduct more research on certain areas of the content. They are encouraged to register for courses on certain topic areas so that they can evaluate the information presented in the textbooks.
- (h) Teachers should use various approaches to explain terminology and concepts to learners. They must ensure that learners are exposed to the language in which they will take down the examination as many learners struggle with reading, understanding and interpreting questions. Such learners also find it challenging to express their responses correctly.

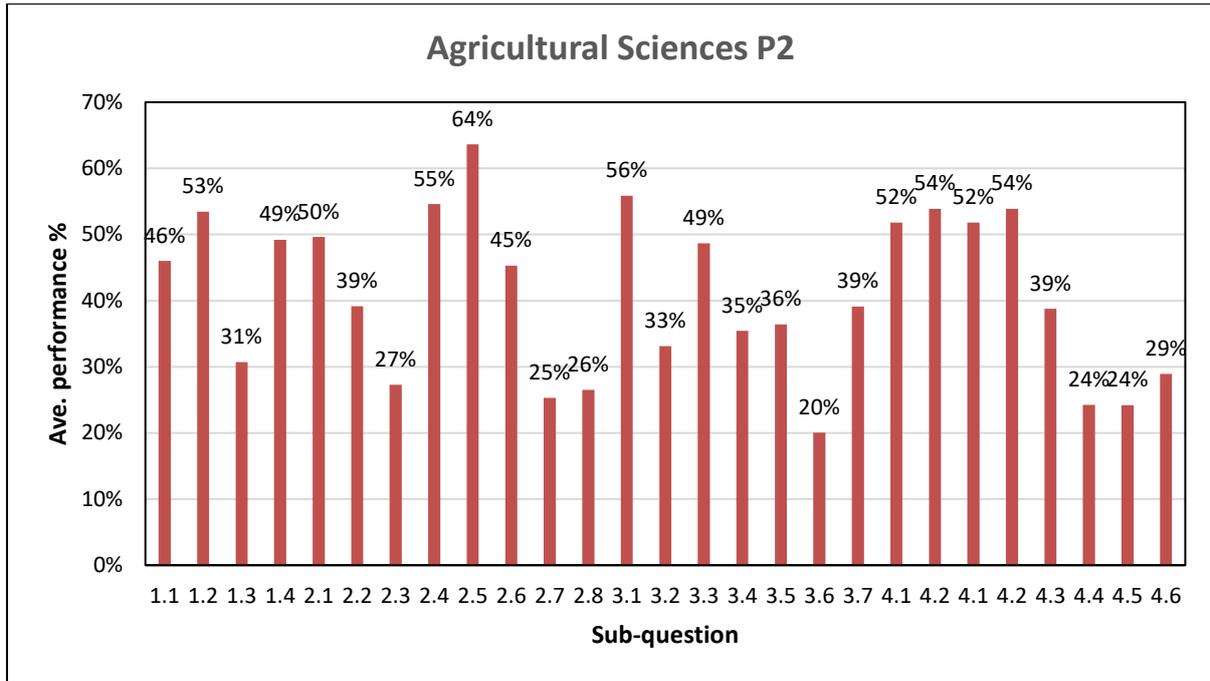
### 3.7 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

The following graph is based on data from a random sample of candidates. While this graph might not accurately reflect national averages, it is useful to assess the relative degrees of challenge of each question as experienced by candidates.

**Graph 3.7.1 Average performance per question in Paper 2**



**Graph 3.7.2 Average performance per subquestion in Paper 2**



Sub-Q	Topic	Sub-Q	Topic
1.1	Multiple choice	3.3	Types of labour and labour productivity
1.2	Matching Items	3.4	Labour legislation
1.3	Terminology	3.5	Cash flow statement
1.4	Replacement of incorrect words	3.6	External forces influencing a farming business
2.1	Supply and demand	3.7	Management skills needed in a farming business
2.2	Methods of promoting a product	4.1	Monohybrid cross
2.3	Price elasticity of demand	4.2	Punnett square
2.4	Marketing functions	4.3	Patterns of inheritance
2.5	Bar graph on demand for sheep	4.4	Variation
2.6	Marketing channels	4.5	Pedigree diagram
2.7	Entrepreneurial process and entrepreneurship	4.6	Hypothesis testing and genetic modification
2.8	Business planning		
3.1	Land as a production factor		
3.2	Methods a farmer may use to increase labour productivity		
3.3	Components and items from a work contract		
3.4	Types of capital and sources of credit		

### 3.8 ANALYSIS OF CANDIDATES' PERFORMANCE IN INDIVIDUAL QUESTIONS IN PAPER 2

#### QUESTION 1: SHORT QUESTIONS (AGRICULTURAL MANAGEMENT AND GENETICS)

##### Common errors and misconceptions

- (a) Q1.1.3, Q1.1.6 and Q1.1.9 were stated in a negative form and appear to have challenged the candidates.

- (b) Most candidates confused an *agent* with a *retailer*. In Q1.1.2. It appeared that they had not been exposed to the information about how agents work: that they are buyers and sellers who work on commission. Retailers do not work for commission, but for profit.
- (c) Candidates reverted to guessing the answer to Q1.2.5, a statement on the characteristics of a whole range of values, even though there was a clue in the statement that referred to *without clear boundaries between the different classes*. It seemed as if the candidates did not understand the statement, possibly because of the use of the word *classes* instead of *groups* as indicated in their textbooks. The problem identified with this is that candidates tend to memorise concepts without attaching any meaning to it.
- (d) Q1.3 on terminology remained a challenge for most candidates; it became evident in Q1.3.1, Q1.3.3 and Q1.3.4, where they were unable to provide the correct concepts.
- (e) In Q1.3.1 candidates responded with *seasonal fluctuation*, a completely different concept than *seasonality* in the question statement.
- (f) In Q1.3.2 candidates confused *net worth* with *net income* or *net profit* as the difference between the value of assets and the value of liabilities.
- (g) Most candidates responded with *heredity* in Q1.3.3 even though the statement was about the study of how traits are passed.
- (h) In Q1.3.4, most candidates struggled to provide the correct answer, possibly because this question was on newly tested information which had not been examined before. This resulted in Q1.3.4 being the question in which candidates performed the worst – an indication that both teachers and learners rely more on past question papers than placing emphasis on the CAPS.
- (i) In Q1.4.5, on terminology, candidates could not differentiate between a *homozygote* and *homozygous*. They were unable to determine that a *homozygote* is an individual with *homozygous alleles* which is the genotype for the *alleles*. Some candidates even opted for a *monohybrid* as the answer since the distractor was a *dihybrid*. They did not understand that the correct word is not just the opposite of the incorrect underlined word and that the question tested the understanding of the concept.

### **Suggestions for improvement**

- (a) Teachers should compile a list of concepts from the CAPS document and present these concepts whenever introducing a new topic.
- (b) Teachers should encourage learners to compile a list of concepts and their meanings, applicable to the topic being taught, and assess them on a regular basis.
- (c) Learners should regularly be given tasks where they list or define concepts in preparation for Q1.3 and Q1.4, which have been raised as problematic for many years.
- (d) Teachers should guide learners on how to answer Q1.4 on a regular basis, so that learners get used to the skill of replacing the underlined word instead of thinking of direct opposites to the underlined words.

### **QUESTION 2: AGRICULTURAL MANAGEMENT AND MARKETING**

- (a) In Q2.1.3 some candidates confused the *market equilibrium* with *equilibrium price* even though the statement referred to a situation when the market is at equilibrium. This showed a lack of understanding of the whole concept of market equilibrium.
- (b) Some candidates failed to read Q2.2.2 in full; as a result, they provided responses that included 'advertisement' even though the question had suggested methods other than advertisement.
- (c) In Q2.3.1 most candidates managed to identify the product that showed price inelasticity of demand, by guessing between avocado and maize. They struggled in Q2.3.2 to give a reason in support of the chosen product. Most indicated that maize was a staple food and could not expand to justify why demand was price inelastic. It was clear that candidates did not fully understand the concept *elastic*. This was evident with some responses like *maize is price elastic*, meaning they were grappling to understand the entire concept of *price elasticity and price inelasticity of demand*. The problem with this content area has been raised in past reports.
- (d) Most candidates responded very poorly to Q2.3.3. They struggled to explain how the availability of substitute products contributes to price elasticity; instead, they merely repeated the statement without providing an explanation. It was further noted that this question even posed a challenge with the marking. Most markers grappled with awarding marks, an indication of a problem not only with the learners' understanding but also with the teaching of the concept *price elasticity of demand or supply*.
- (e) Most candidates found it challenging to score the full six marks for plotting the graph in Q2.5.1 because it was the first time that they were expected to plot a graph that had three variables with two on the same axis (Y-axis).
- (f) In Q2.7.1 the problem was the interpretation of the flow diagram, where most candidates struggled to identify the phases of an entrepreneurial process.
- (g) In Q2.7.2 instead of defining the concept *entrepreneurship*, most candidates defined an *entrepreneur*. The observation made was that candidates were unable to differentiate between the process of entrepreneurship and the entrepreneur, namely the person running the business.
- (h) Q2.8.1 was answered poorly. Candidates struggled to deduce what potential investors would look for in a business plan. This problem emerged in other questions that needed application of knowledge.

### **Suggestions for improvement**

- (a) Agricultural Sciences learners should be allowed to join Economics classes during the lessons on demand and supply so that they get better insight into the fundamentals of *supply and demand* and *price elasticity of demand and supply*.
- (b) Teachers should align the content with real-life situations to convey more understanding of the topics with regard to marketing, by arousing interest and creating further opportunities for learning.
- (c) PLCs (Professional Learning Communities), together with Economics teachers, should be established where content knowledge and methodologies may be shared and/or demonstrated for challenging topics such as demand and supply where the concept of price elasticity could be unpacked in great depth.

- (d) Working together with subject teachers of Mathematics and Mathematical Literacy would benefit both Agricultural Sciences teachers and learners by allowing the integration of knowledge learnt in other subjects.
- (e) Setting tasks that are pitched at a higher cognitive demand would assist in improving the reasoning capabilities of candidates.

### QUESTION 3: PRODUCTION FACTORS

#### Common errors and misconceptions

- (a) In general, Q3 was answered very poorly when compared to previous examinations. Candidates struggled to provide answers to questions that required an explanation of facts.
- (b) In Q3.1.2(a) most candidates failed to explain how each farming method could be used to increase land productivity. Instead of elaborating on how each method could be used, candidates simply named the different scientific methods. Q3.1.2(b) challenged candidates by requiring an explanation of how the consolidation of small units would increase productivity. This revealed that the problem of *explaining how* poses a problem to many candidates.
- (c) Most candidates could not deduce the labour challenge addressed by the farmer appropriately; instead they identified methods to increase labour productivity. Candidates were unable to relate the schematic representation to the question. Analysis and application questions remained a challenge, as was the case in Q3.2.2.
- (d) In Q3.3 candidates struggled to identify the components of the contract that was represented by the items, opting instead to rewrite the same items in the contract and label them as components. Candidates had difficulty with applying knowledge in response to questions.
- (e) Candidates struggled to come up with the correct component in Q3.3.1. They provided responses like *amount* instead of *mode of payment* in Q 3.3.1(c).
- (f) In Q3.3.3 candidates wrote *the protective gear*, which was a component of the contract, instead of identifying the items that addressed OHS.
- (g) In Q3.4.2 most candidates struggled to explain the type of credit that was used to source the movable capital; instead, they identified the credit type without explaining it.
- (h) In Q3.5.1 some candidates struggled to differentiate between *Income Statement* and *Cash Flow Statement*. Candidates showed a lack of understanding of the key components of each statement.
- (i) Giving the correct reason in Q3.5.4 was challenging for some candidates, especially those who had failed to calculate the correct closing balance. They provided responses like *the business is generating income*, which does not necessarily translate to profit. Candidates used *income* and *profit* interchangeably, terms which are not equivalent.
- (j) In Q3.6 candidates found it difficult to identify the different external forces affecting the business; instead they associated the forces with types of risks.

### Suggestions for improvement

- (a) Learners should be exposed to questions that require interpretation of data from either tables, graphs or scenarios and the explanation of facts.
- (b) Case studies, diagrams and scenarios need to be included in assessment tasks at regular intervals during the school year, with the aim of exposing learners to activities that will improve their skills in answering these types of questions. Such interventions could assist learners by improving their reading and comprehension skills, as well as the application of knowledge and an awareness of how to follow instructions.
- (c) Assessment and moderation workshops dedicated to the development of assessment activities that meet all the criteria of an assessment instrument should be conducted by subject advisors.
- (d) Exposure to and training of teachers on the use of the analysis grid in utilising the assessment instrument is also important in testing compliance to the assessment instrument in meeting standards.

### QUESTION 4: BASIC AGRICULTURAL GENETICS

#### Common errors and misconceptions

- (a) In Q4.1.1 some candidates struggled to interpret the crossing of the two cattle breeds. As a result they found it difficult to answer the subsequent questions, Q4.1.2 and Q4.1.4. Some candidates even confused the *genotype* with the *phenotype*. This problem was evident when they gave answers to the questions such as *heterozygous black* for the *phenotype* in Q4.1.4(b) and three black : one white in Q4.1.5, which indicated a *phenotypic* ratio rather than *genotypic*.
- (b) Some candidates were challenged by simple mathematical calculations that required an understanding of fractions and working from a fraction to whole numbers in Q4.2.2 and Q4.2.3. Candidates provided answers in whole numbers, e.g. three (3) in Q4.2.2, while others came up with unfounded fractions such as  $\frac{1}{4}$ , while some responded in %.
- (c) The questioning style in Q4.3 required the application of knowledge, which was a challenge for most candidates.
- (d) In Q4.3.2 some candidates were unable to differentiate between the *cause* and the *effect*. Candidates were unable to tell whether the correct response was *polygenes* or *polygenic inheritance*, hence they responded with *polygenes* instead of *polygenic*.
- (e) In Q4.4.1 some candidates could not determine the difference between the genetic causes of variation and environmental causes; as a result, candidates provided *colour* as an environmental effect in variation.
- (f) Even though similar questions have been asked in the previous years, candidates still showed that they found it difficult to interpret the pedigree diagram in Q4.5. They were unable to respond that *breed C and breed D* are siblings, hence the breeding between the two would be inbreeding. They had a particular challenge with Q4.5.1(a) and (b) and Q4.5.2 and Q4.5.3 which required the correct interpretation of the diagram to respond accurately to breeding systems depicted in the diagram and their advantages.
- (g) In Q4.6.1 the majority of the candidates showed that they were unable to formulate a hypothesis.

- (h) Q4.6.2 was poorly attempted even though the question statement provided clues towards formulating the answer when it referred to *socio-economic impact* to small-scale farmers.
- (i) Most of the candidates scored only one mark for Q4.6.3 and Q4.6.4, even though the questions were straightforward and very direct. Candidates were required to use their knowledge of the advantages of GM crops and refer to those super characteristics to explain how they are of benefit. Candidates struggled to respond correctly to the questions and only responded with general benefits in Q4.6.4, instead of aims.

### **Suggestions for improvement**

- (a) Understanding of terminology is key to understanding basic genetics, and learners should be able to describe the genetic concepts.
- (b) Teaching genetics should be reinforced by practical examples within the learners' learning environment, such as plants, flowers and livestock.
- (c) Patterns of inheritance and their application seem to be problematic. Teachers need to expose learners to different questions on these concepts and their practical applications.
- (d) Learners should be trained on how to analyse a pedigree diagram so that they are able to determine the relationship between individuals in the pedigree diagram. Teachers can design various pedigree diagrams and allow learners to demonstrate their understanding by unpacking them.
- (e) When teaching breeding systems, learners should be taught examples of crossings resulting from different breeding systems and should be tested on the benefits and disadvantages of each system. Schematic representations of animal breeding systems should be used to illustrate basic types of breeding methods.
- (f) Responses to questions on genetics suggest that there could be an underlying content gap among teachers. Subject advisors should conduct refresher workshops to address the shortcomings in specific content knowledge.
- (g) There should also be integration with Life Sciences, as genetics is taught comprehensively in Life Sciences, while Agricultural Sciences only deals with its application in real-life situations.
- (h) Genetic modification is a topic of current interest which is even debated on bigger public platforms. Teachers are encouraged to allow debates on this topic in the classroom and afford learners the opportunity of engaging and presenting their findings. A deeper understanding of the topic would enhance learners' broader insight into genetic modification.

# CHAPTER 4

## BUSINESS STUDIES

The following report should be read in conjunction with the Business Studies Paper 1 and Paper 2 question papers for the NSC November 2025 examinations.

The year 2025 marked the sixth year since the move to two 2-hour papers of 150 marks each. Each paper aims to assess separate and distinct disciplines as outlined in the *2021 Examination Guidelines*, as follows:

	MAIN TOPICS	SUBTOPICS
<b>PAPER 1</b>	Business Environments	<ul style="list-style-type: none"> <li>• Macro environment: Impact of legislation</li> <li>• Macro environment: Business strategies</li> <li>• Business sectors and their environments</li> </ul>
	Business Operations	<ul style="list-style-type: none"> <li>• Human Resources function</li> <li>• Quality of performance</li> </ul>
<b>PAPER 2</b>	Business Ventures	<ul style="list-style-type: none"> <li>• Management and leadership</li> <li>• Investment: Securities/Opportunities</li> <li>• Investment: Insurance</li> <li>• Forms of ownership</li> <li>• Presentation and data response</li> </ul>
	Business Roles	<ul style="list-style-type: none"> <li>• Ethics and professionalism</li> <li>• Creative thinking and problem solving</li> <li>• Social responsibility (CSR/CSI)</li> <li>• Human rights, inclusivity and environment</li> <li>• Team performance, conflict management</li> </ul>

### 4.1 PERFORMANCE TRENDS (2021–2025)

The number of candidates who sat for the Business Studies examinations in 2025 increased by 10 901, compared to that of 2024.

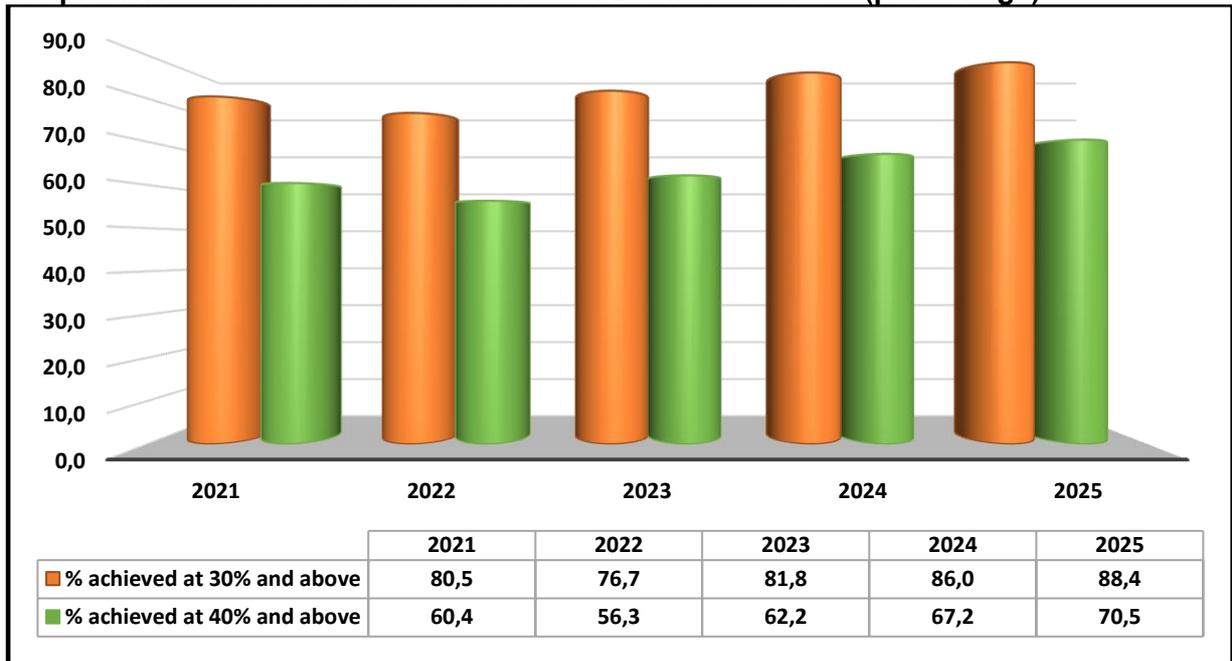
There was a significant improvement in the pass rate this year. Candidates who passed at the 30% level and above improved from 88% in 2024 to 88,4% in 2025. There was a corresponding improvement in the pass rate at the 40% level and above from 67,2% in 2024 to 70,5% in 2025. However, there was a decline in the percentage of distinctions from 6,9% in 2024 to 6,4% in 2025. The total number of distinctions decreased from 16 103 in 2024 to 15 634 in 2025.

The improvement in the level of performance in 2024 gained further momentum in 2025 due to the continued quality of teaching and assessment together with the additional learner support materials issued by the DBE that are widely used by teachers and learners across the country.

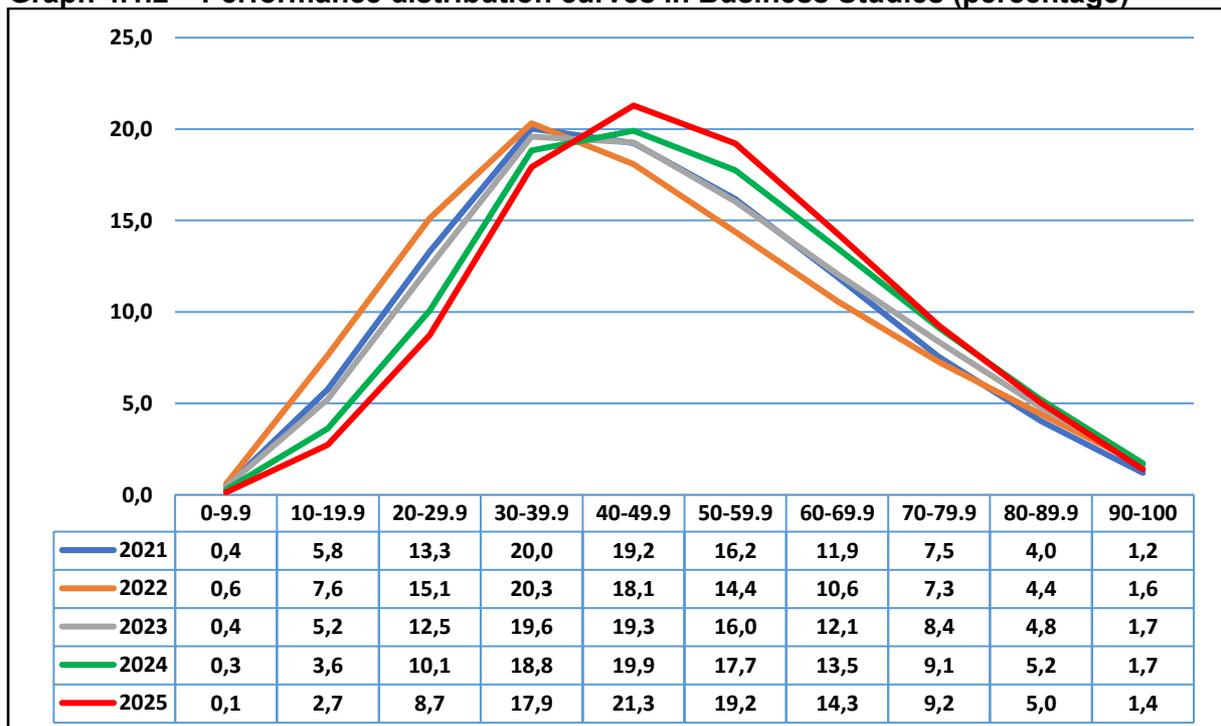
**Table 4.1.1 Overall achievement rates in Business Studies**

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2021	243 843	196 233	80,5	147 398	60,4
2022	241 989	185 503	76,7	136 330	56,3
2023	227 632	186 191	81,8	141 604	62,2
2024	233 383	200 731	86,0	156 800	67,2
2025	244 284	215 915	88,4	172 146	70,5

**Graph 4.1.1 Overall achievement rates in Business Studies (percentage)**



**Graph 4.1.2 Performance distribution curves in Business Studies (percentage)**



## 4.2 OVERVIEW OF CANDIDATES' PERFORMANCE: PAPERS 1 AND 2

### General comments

- (a) The general performance of candidates was better in Paper 1 than in Paper 2. This was due to their responses in questions based on the Human Resources function and Quality of Performance.
- (b) Most candidates provided vague, one-word and incomplete responses to middle-order and higher-order subquestions in Sections B and C in P2. This challenge persisted, despite the recommendations made in previous national Diagnostic Reports on learner performance.
- (c) The few candidates who chose Business Environments did not perform well in Q2 and Q5 in Paper 1. Candidates were expected to perform well, as all questions examined on this topic have been assessed in previous NSC question papers and in provincial preparatory examination question papers.
- (d) In Paper 2, it was evident that many candidates had prepared for questions on Business Roles, with many candidates answering Q3, Q4 and Q6. Very few candidates answered Q2 and Q5 on the topic Business Ventures. Poor performance was noticed in Q4. The few candidates that answered Q5 performed well.
- (e) Many candidates obtained one out of two marks in Section B as they incorrectly wrote the distractor in questions where quotations from scenarios were required. In both Paper 1 and Paper 2, many candidates were able to use the table as a guide on how to present their answers.
- (f) There was an improvement in essay writing. Most candidates used the correct layout and gave suitable responses to the four subquestions. However, the ability of candidates to provide introductions and conclusions using any two of the four subquestions showed very little improvement. Some candidates repeated sentences from the preamble in their introductions and conclusions. This meant that the introductions and conclusions continued to be a challenging aspect of essay writing despite the recommendations made in the 2024 Diagnostic Report on learner performance.
- (g) There was an improvement in performance in Q5 of Paper 2, and Q6 (essay writing) in both papers. Candidates forfeited marks for originality in their essay questions as they did not provide relevant examples that were not older than two years to support their answers (based on recent information, current trends and developments).

### General suggestions for improvement

- (a) Business Ventures must be adequately taught and assessed during the academic year. Learners need to acquire a deeper understanding of this topic to allow them a wider option on the choice of questions to be answered.
- (b) Teachers must be trained to use the guidelines given in Note 12.2 of the marking guidelines when marking learners' responses during teaching and learning. Teachers must not award two marks for vague and incomplete responses when marking formal assessments in the academic year. Teachers should ensure that learners do corrections on all informal and formal assessments. This will guarantee an improvement in future assessments.

- (c) Learners must ensure that they gain a sound understanding of the purpose of the two topics under Business Environment (Legislation and Business Strategies). These topics must be adequately assessed through direct and indirect questions during the academic year.
- (d) Learners must be well conversant with all subtopics covered in P2 including Business Ventures and Business Roles. To ensure adequate preparation, particularly for Business Ventures, teachers should implement effective teaching and learning strategies aimed at strengthening learners' understanding and improving their performance in this main topic. They must have an in-depth understanding of the content, including headings and subheadings. Teachers should consider using role playing, simulations and videos to enhance the quality of teaching and learning in the classroom.
- (e) It is recommended that teachers assist learners to identify distractors in questions, when learners are expected to quote from scenarios. Informal assessments must include scenarios with distractors that are close to the required answer as this will assist learners to master the content.
- (f) Teachers must encourage learners to practise writing as many introductions and conclusions as possible during teaching and learning to gain confidence. More essay questions must be administered as informal activities to practise the writing of introductions and conclusions. Learners must be informed that they will not be awarded marks for introductions and conclusions that are quoted verbatim from definitions and facts from the credible sources.
- (g) Learners must conduct research using the internet, newspaper articles and other reliable sources on recent developments in the subject. This research will generate relevant and current examples and reinforce the content knowledge.
- (h) It is highly recommended that teachers construct a report using the national Diagnostic Reports on learner performance from 2021–2025. This will allow them to address all misconceptions and errors, and implement the recommendations for each topic in the two papers. Learners must be aware of these errors to avoid repeating them. This recommendation was also made in the 2022–2024 Diagnostic Reports.
- (i) Subject advisors and teachers are advised to go through Paper 1 and Paper 2 addendums from 2022 to 2025 and take note of facts that have been revised in the November NSC marking guidelines. Such revisions should also be made across all resource material used by teachers and learners to preclude learners from losing marks for providing incorrect information. It must be noted that all revised facts have also been reported in the past national *diagnostic reports*.

### 4.3 DIAGNOSTIC QUESTION ANALYSIS OF PAPER 1

The graphs presented below are based on data from a random sample of candidates in the different provinces. Although these graphs may not accurately reflect national averages, they are helpful in determining the relative degree of challenge of each question, as experienced by candidates. Paper 1 consists of five subtopics that assess Business Environments and Business Operations. The 2025 cohort showed a commendable 7% improvement in the performance of Q1, increasing from 69% in 2024 to 76% in 2025. This question consisted of ten subquestions assessing Business Environments and Business Operations.

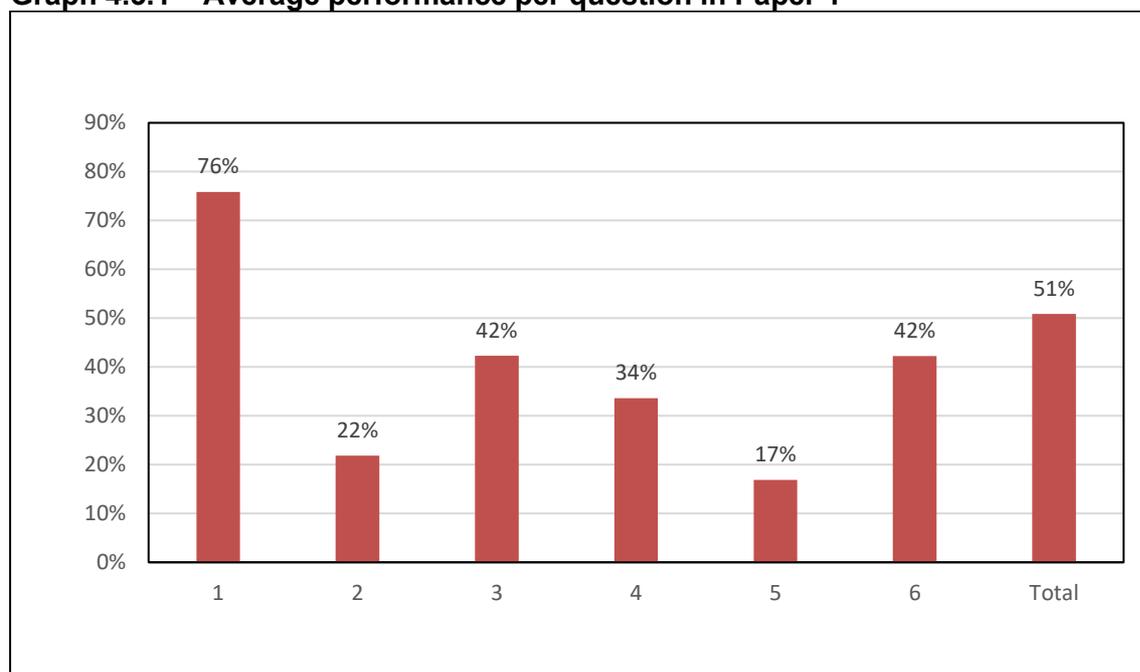
The average performance of the 2025 cohort in Business Environments, which was assessed in Q2 and Q5, declined compared to 2024. The data below indicates a measurable decline of

12% in candidates' performance in Q2 (Section B), decreasing from 34% in 2024 to 22% in 2025. Similarly, the average performance in Q5 (Section C) declined from 30% in 2024 to 17% in 2025, representing a 13% decrease over the two-year period. This decline may be attributed to candidates placing greater emphasis on Business Operations and less on Business Environments. The findings indicate that candidates in the 2025 cohort demonstrated significant gaps in preparation when answering questions on Business Environments.

Q4, the miscellaneous question assessing both main topics, allocates 20 marks each to Business Environments and Business Operations. Performance declined by 7%, dropping from 41% in 2024 to 34% in 2025. This decrease is linked to candidates placing greater emphasis on Business Operations and neglecting Business Environments, which affected their overall results.

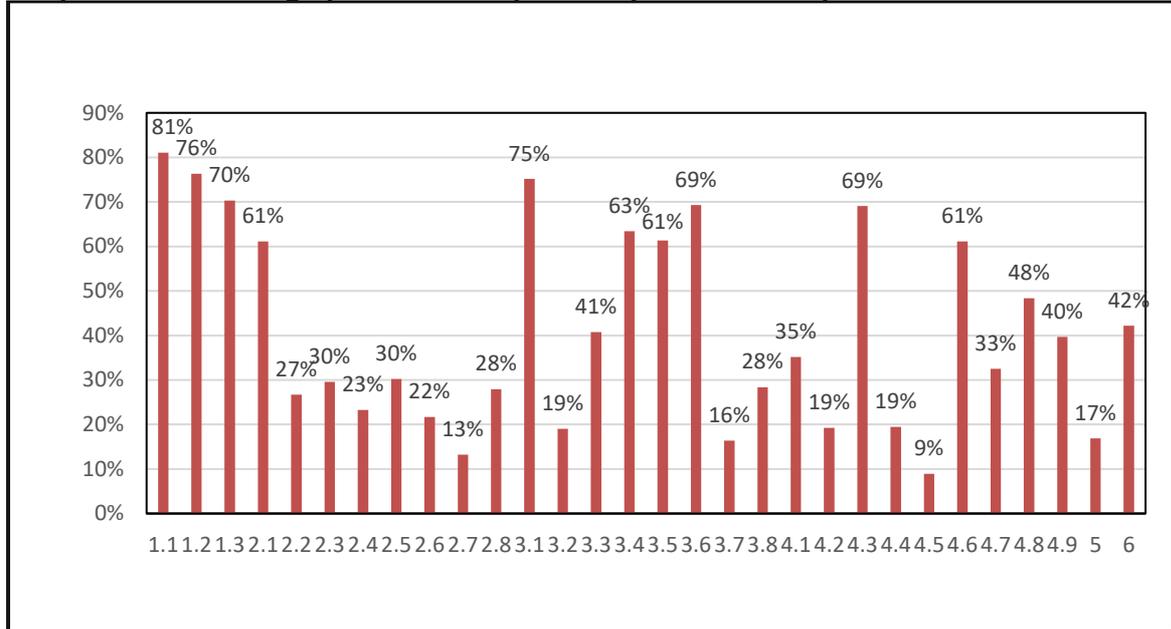
It should be noted that candidates' performance in Business Operations declined in both Q3 and Q6. The average percentage in Q3 (Section B) decreased by 8%, from 50% in 2024 to 42% in 2025. The essay question, Question 6 (Section C), recorded the most substantial decline among all six questions examined in the paper, decreasing by 24% from 66% in 2024 to 42% in 2025. This downward trend highlights an urgent need for improvement in the teaching and learning of Business Operations.

**Graph 4.3.1 Average performance per question in Paper 1**



Q	Topic
1	Short Questions
2	Business Environments
3	Business Operations
4	Miscellaneous Topics
5	Business Environment: Legislation
6	Business Operations: Human Resources Function

**Graph 4.3.2 Average performance per subquestion in Paper 1**



Sub-Q	Topic	Sub-Q	Topic
1.1-1.3	Short questions	3.6	Bus Opn: Reduce the cost of quality/ impact of TQM if poorly implemented
2.1	Bus Env: Types of leave provision as stipulated in the BCEA	3.7	Bus Opn: Advantages of monitoring and evaluation of quality processes
2.2	Bus Env: Role of SETAs in supporting the SDA	3.8	Bus Opn: Quality indicators of the public relations function
2.3	Bus Env: Application of Porter's Five Forces Model	4.1	Bus Env: Types of defensive strategies
2.4	Bus Env: Steps in strategy evaluation	4.2	Bus Env: Strategic management process
2.5	Bus Env: Types of intensive strategy	4.3	Bus Env: Business environments
2.6	Bus Env: Ways to comply with the NCA	4.4	Bus Env: Impact of COIDA
2.7	Bus Env: Application of ownership as a pillar of the BBBEE	4.5	Bus Env: Dealing with social factor of the PESTLE analysis
2.8	Bus Env: Advantages of diversification strategy	4.6	Bus Opn: Purpose of induction
3.1	Bus Opn: Examples of fringe benefits	4.7	Bus Opn: UIF as a benefit required by law
3.2	Bus Opn: Placement procedure as a human resources activity	4.8	Bus Opn: TQM element/ good quality management system
3.3	Bus Opn: Salary determination method/implications of LRA on human resources function	4.9	Bus Opn: Quality circles
3.4	Bus Opn: Reasons for the termination of an employment contract	5	Bus Env: Legislation
3.5	Bus Opn: Difference between quality control and quality assurance	6	Bus Opn: Human Resources Function

## 4.4 ANALYSIS OF CANDIDATES' PERFORMANCE IN INDIVIDUAL QUESTIONS IN PAPER 1

### SECTION A: MULTIPLE-CHOICE/SHORT-ANSWER QUESTIONS

#### QUESTION 1: COMPULSORY (MULTIPLE-CHOICE, CHOOSING CORRECT WORDS AND MATCHING ITEMS)

Candidates' performance in this question improved from 69% in 2024 to 76% in 2025. This increase may be attributed to the use of targeted methods and suggestions aimed at enhancing performance in Section A-type questions. It also reflects greater familiarity with subject-specific terminology. In Q1.1 performance rose significantly from 64% in 2024 to 81% in 2025, representing a 17% increase. Q1.2 also showed a notable improvement of 13%, increasing from 63% to 76%. However, Q1.3 experienced a decline of 12%, with performance decreasing from 82% in 2024 to 70% in 2025. These subquestions included multiple-choice items, completion of statements and matching Column A and B exercises.

#### Common errors and misconceptions

- (a) Several candidates forfeited marks in Q1.1.5, which assessed the step of the PDCA model by monitoring processes, despite this question being assessed in November 2023 and 2024 NSC question papers. Many candidates selected Option C (Plan) or Option D (Act) instead of the correct answer, Option B (Check).
- (b) A few candidates did not follow the instructions in Q1.2.1 and Q1.2.4 as they did not complete statements using words provided in the textbox, but instead wrote 'National Skills Development' and 'selection procedure' respectively.
- (c) In Q1.2.2 candidates selected 'Weakness' instead of 'Threat' when completing the statement. The choice of 'Weakness' indicates that candidates interpreted the statement from an internal perspective, rather than recognising the external nature of a 'Threat'. Some candidates also transferred the word 'threat' incorrectly from the textbox, writing 'treat'.
- (d) In Q1.3.2 some candidates confused horizontal integration with backward vertical integration by selecting option E in column B instead of option J. Candidates struggled to match horizontal integration with the description 'aims at reducing the threat of competition'.

#### Suggestions for improvement

- (a) Q1.1.5: Teachers should reinforce the distinct purpose of each stage so that learners can clearly differentiate that 'implement' belongs to 'Do', while 'evaluate/monitor' belongs to 'Check', and 'adjust' belongs to 'Act'. More scenario-based questions where learners are able to identify the correct step of the PDCA model should be provided.
- (b) Teachers should encourage learners to write the word(s) from the textbox as is, by utilising past NSC question papers to administer informal activities during teaching and learning. Learners should be given more activities on answering Question 1 for continuous practice and self-assessment.
- (c) Q1.2.2: Emphasise to learners that strengths and weaknesses are internal factors that are within the business's control. Opportunities and threats are external factors (arising from the environment, competitors, market, regulations, etc.), are not within the

business's control. Provide learners with mixed statements in informal assessment and ask them to classify each as internal or external.

- (d) Q1.3.2: Teach learners by providing them with practical examples that will assist them to identify key words associations, such as Horizontal → (competition-focused) Competitors, Vertical → Suppliers/Distributors (supplier-focused).

## **SECTION B: LONGER AND PARAGRAPH QUESTIONS, USING CASE STUDIES AND INFORMATION**

### **QUESTION 2: BUSINESS ENVIRONMENTS**

A significant decline of 12% was observed in candidates' performance in Question 2 (Section B), dropping from 34% in 2024 to 22% in 2025. Improvement had been expected as all subtopics of Business Environments were evenly assessed in line with the prescribed content distribution, appropriate cognitive levels and previous NSC papers. This decline highlights not only inadequate preparation for Question 2, but also selective studying, with some candidates neglecting to prioritise legislation and revealing underlying content gaps in Business Environments.

#### **Common errors and misconceptions**

- (a) In Q2.1 many candidates forfeited marks by failing to correctly indicate the type of leave as prescribed by the Basic Conditions of Employment Act (BCEA). Common errors included responses such as 'family leave' and 'pregnancy leave', which are not correct according to the BCEA.
- (b) A few candidates showed limited understanding of the role of SETAs in Q2.2. They confused SETAs with unrelated labour legislation, while others wrote vague and incomplete responses to explain the role of SETAs in supporting the implementation of the skills development.
- (c) In Q2.3.1 some candidates were unable to identify the correct force of Porter's Five Forces model from the scenario. Some wrote 'threat of competition' instead of the precise term, 'threat of competitors'. As a result, they forfeited marks.
- (d) In Q2.3.2 some candidates incorrectly described the application of the Power of Competitors, which was the answer for Q2.3.1, resulting in the loss of marks. A similar question was asked in the NSC November 2024.
- (e) Some candidates' responses in Q2.4 focused on the strategic management process rather than the steps in strategy evaluation. Some candidates responded with the steps in problem-solving (Paper 2 content). This is a recurring error, despite being highlighted in previous diagnostic reports.
- (f) In Q2.5 several candidates discussed the types of integration strategies instead of the types of intensive strategies and forfeited marks by providing the incorrect type of strategy.
- (g) In Q2.6.2 candidates confused the rights of consumers according to the CPA with the ways in which businesses can comply with the NCA. As a result, they forfeited marks for not addressing the specific requirements of the question.

- (h) Candidates could not distinguish between 'ownership' and 'management control' in Q2.7 as some responses were based on the application of management control. In some cases, they only responded with vague, incomplete sentences.
- (i) In Q2.8 candidates' responses reflected confusion between the advantages of intensive strategies and those of diversification strategies. As a result, many candidates incorrectly applied the advantages of intensive strategies in their responses and forfeited marks.

### **Suggestions for improvement**

- (a) A clear distinction must be made between leave as provision according to the BCEA and types of leave as a BCEA provision. Teachers should highlight that terms like 'family leave' or 'pregnancy leave' are incorrect and explain the proper terminology (e.g. 'family responsibility leave' and 'maternity leave'). Give learners scenarios where they must name the types of leave. Example: 'An employee requests time off to attend their child's graduation' → Family responsibility leave.
- (b) Use summaries, flowcharts and mind maps to introduce the Skills Development Act. Assist learners in identifying key words (such as training, education, learnership) that are specific to the SDA. Then introduce the role of SETAs as an additional subtopic. Teachers must emphasise that SETAs oversee the training process and support the implementation of the SDA and should not be seen as a separate Act.
- (c) Present the Five Forces in a table, so learners can easily recall the correct phrasing. Teachers must point out that 'competition' is a vague term, while 'competitors' specifically refers to rival firms in the industry. Teachers must provide learners with scenarios and ask them to match each situation to the correct force, ensuring they use the precise terminology.
- (d) Q2.4: Teachers must emphasise that strategy evaluation is a distinct phase within the broader strategic management process, focusing on reviewing and correcting. Teachers can create a table with strategic management process and strategy evaluation side-by-side to highlight differences, so learners can visually see the distinction. Provide scenario-based questions where learners must identify whether a step belongs to strategic management process or strategy evaluation.
- (e) Q2.5: Teachers must emphasise that Intensive Strategies (market penetration, market development, product development) focus on expanding within existing markets or products to increase sales. Integration Strategies (backward vertical, forward vertical and horizontal) focus on expanding through mergers, acquisitions or control of supply/distribution channels. Comparative teaching by presenting the two sets of strategies using a diagram can be used to highlight differences.
- (f) Lesson plans must be designed to offer a clear distinction between the National Credit Act that covers credit sales and credit transactions, and the Consumer Protection Act that covers product sales in the consumer market. Use the following key words in assisting learners to remember ways to comply with the NCA: Pre-agreement statements, disclosure, credit records, National Credit Regulator, affordability assessments and credit checks).
- (g) Q2.7: Teachers can identify key words that will enable learners to remember the meaning of each pillar. Emphasise that ownership refers to those who holds equity or shares in the business, while management control relates to decision-making authority

and operational oversight. Provide learners with case studies and ask them to identify whether the situation relates to ownership or management control.

It must be noted that the following statements were elaborated on during the marking standardisation meeting:

- *Businesses sometimes find it difficult to locate suitable black business partners/shareholders who can afford shares.*

Teachers are advised to revise this fact in the DBE notes, textbooks and other credible resource materials to enable learners to obtain improved marks.

- (h) Q2.8: Teachers must emphasise that intensive strategies (market penetration, market development, product development) focus on growth within existing products and markets in comparison with diversification strategies which involve entering new industries or markets, often unrelated to current operations. Provide learners with scenarios and informal assessments, then have them accurately identify and classify the appropriate strategy.

### QUESTION 3: BUSINESS OPERATIONS

Q3 examines Business Operations, a topic frequently and commonly selected by candidates. Average performance in Q3 (Section B) declined by 8%, from 50% in 2024 to 42% in 2025, contrary to expectations of improvement amid stable growth. The question comprised two scenario-based with indirect follow-on questions to ease the level of difficulty while the remaining questions appeared in various forms in previous NSC examination papers, assessing similar content.

#### Common errors and misconceptions

- (a) In Q3.2 many candidates provided the definition of placement instead of outlining the placement procedure; this indicated a limited understanding of this HR activity. In addition, some candidates confused placement with induction and provided definitions of induction instead of addressing the question, which led to the loss of marks. This challenge is persistent despite the recommendations made in previous diagnostic reports.
- (b) While some candidates correctly identified the piecemeal method in Q3.3, many could not explain the implications of the Labour Relations Act on the HR function. Responses were often vague as some candidates wrote about the rights of workers under the LRA, which led to the forfeiture of marks.
- (c) In Q3.4 candidates provided incomplete facts when explaining the reasons for termination of employment contracts. Many responses were limited to one-word answers such as 'dismissal' or 'retirement', without further elaboration, which resulted in the forfeiture of marks.
- (d) Candidates forfeited marks in Q3.6.2 by providing vague or incomplete responses when explaining the impact of Total Quality Management (TQM) if poorly implemented by businesses. Many answers lacked sufficient detail or failed to address the negative consequences comprehensively. This is also a recurring question that has been previously assessed in past exams.
- (e) In Q3.7 the elements of Total Quality Management (TQM) continued to pose a challenge for candidates, particularly in describing the advantages of monitoring and evaluation of quality processes for large businesses. Many candidates struggled to provide clear, detailed responses, which resulted in the loss of marks.

- (f) Some candidates' responses to Q3.8 focused on providing quality products to the public rather than addressing the quality indicators of public relations. As a result, they forfeited marks for not aligning their answers to the specific requirements of the question. Some confused public relations with the marketing function. In addition, the quality indicators provided were often vague or imprecise. This illustrates a continuous challenge in this section of the curriculum.

### Suggestions for improvement

- (a) Q3.2: There must be a clear distinction between the meaning of 'placement' and 'placement procedure'. Learners must also know the difference between 'placement' (assigning an employee to a suitable position) and 'induction' (orienting a new employee to the organisation). Teachers must clarify that placement involves matching skills to job requirements, while induction focuses on familiarisation with organisational culture and policies.  
It must be noted that the following statement was elaborated on during the marking standardisation meeting:
- *Determine the relationship between the position and the competencies of the new employees.*
- Teachers are advised to revise this fact in the DBE notes, textbooks and other credible resource materials to enable learners to obtain full marks.
- (b) Q3.3: The implications of the LRA for the human resources function are in line with the ways in which businesses should comply with this Act. Teachers should highlight the implications of the Labour Relations Act (LRA) on the human resources function and explain techniques that can be used to simplify this component of the curriculum. Recap this Act and encourage learners to identify key words such as 'dismissal', 'hearings' or 'wage negotiations', to develop a practical understanding of the implication of LRA on HR activities. This subtopic should be adequately covered during informal and formal assessments.  
It must be noted that the following fact was elaborated on during the 2025 marking standardisation meeting:
- *Promotes resolution of labour disputes between employer and employees.*
- Teachers are advised to revise this fact in the DBE notes, textbooks and other credible resource materials to enable learners to obtain full marks.
- (c) Teachers should reinforce that questions that contain verbs such as 'advise', 'explain', 'describe' and 'discuss' require full sentences and elaboration, not single words. Example: 'Dismissal' is not enough to score marks; learners must be taught to explain the circumstances and implications. Learners should be provided with practical examples to further explain the difference between incomplete and complete answers: An incomplete answer, for example, would be: 'Dismissal'. A complete answer would be: 'Dismissal occurs when an employer terminates an employee's contract due to misconduct or poor performance'.
- (d) Q3.6.2: Teachers should unpack the impact of TQM if poorly implemented by businesses and give practical examples of the negative impact on business operations. Teachers can assist learners to identify key phrases such as 'setting unrealistic deadlines', 'decline in productivity' and 'decline in sales' to complete sentences. Teachers can provide scenario-based activities to strengthen learners' ability to respond with clarity and depth in assessments.
- (e) Q3.7: Teachers should unpack the meaning of TQM by using practical examples and focus on the word 'Total' – the aim is to involve all employees, systems and approaches to satisfy customer needs beyond their expectations. Learners must know that the

focus of the TQM systems and processes is to improve the quality of an organisation's outputs, including goods and services, through the continual improvement of internal practices. Clarify the purpose of monitoring and evaluation and reinforce that monitoring and evaluation are not just routine checks, but strategic tools that help large businesses maintain and improve their quality standards, identify inefficiencies and improve customer satisfaction. Teachers must also incorporate case studies from companies when covering this aspect of the curriculum. Teachers are advised to focus on, and continuously revise, the impact (advantages and disadvantages) of TQM elements on large businesses.

- (f) Teachers must explain to learners that PR is not about product quality, but about how the business promotes its image, communication, responds to media coverage and its relationships with stakeholders. Teachers should highlight that: Marketing → promotes products/services to drive sales; PR → promotes the business's reputation, credibility and stakeholder relationships.

#### **QUESTION 4: MISCELLANEOUS TOPICS**

This question assessed the two main topics of the paper through direct and indirect short questions, with each topic carrying 20 marks respectively. Average performance in the Business Environments component of Q4 was significantly lower than in the Business Operations component, continuing a trend of underperformance highlighted in previous years. In contrast, Q4.3 achieved 69%, the highest score among all Q4 subquestions. Overall, candidates performed better in Business Operations than in Business Environments. This consistent performance in Business Environments, noted in previous diagnostic reports, points to ongoing knowledge gaps and preparation, particularly in the subtopics of Legislation and Business Strategies which remain challenging for teaching, learning and assessment.

A notable number of candidates did not attempt Questions 4.1 to 4.5, which assessed Business Environments and, instead, focused only on Questions 4.6 to 4.9 on Business Operations.

#### **Common errors and misconceptions**

- (a) Most candidates did very well in Q4.1 as they found it easy to recall specific defensive strategies. Some provided responses such as 'horizontal' or 'vertical integration strategies' instead, while a few candidates left the response blank.
- (b) In Q4.2 candidates confused the strategic management process with the steps in strategy evaluation and, as a result, forfeited marks for not addressing the correct concept required by the question.
- (c) Candidates' responses to Q4.4 focused on the purpose of COIDA and issues of compliance, rather than addressing the impact of COIDA on businesses. As a result, many forfeited marks for not aligning their answers with the specific requirements of the question.
- (d) Candidates performed poorly in Q4.5, as they were unable to recommend ways in which businesses can address the challenges posed by the social factors in the PESTLE analysis. Many responses even lacked practical strategies, resulting in a loss of marks.
- (e) Q4.6: Although good performance was noted on the purpose of induction, some candidates' responses focused on either the benefits of induction or aspects that

should be included in the induction programme. Others provided vague and incomplete responses.

- (f) Candidates did not perform well in Q4.7. Many responses were incorrect, as learners confused the Unemployment Insurance Fund (UIF) as a compulsory benefit, with the examples of fringe benefits, while others provided vague or incomplete explanations.
- (g) In Q4.8.1 many candidates were unable to identify adequate financing and capacity as a TQM element from the given scenario. They subsequently forfeited a mark for the motivation as this depended on the correct identification of the TQM elements.
- (h) Candidates performed poorly in Q4.9 as they did not have an in-depth knowledge of the roles of quality circles as part of continuous improvement of processes and systems. Some responses were based on ways in which TQM can reduce the cost of quality while others focused on the impact of continuous improvement on processes and systems as a TQM element. The same question had been asked in the 2022, 2023 and 2024 NSC November examinations and areas for improvement were noted in the 2022 and 2023 National Diagnostic Reports.

### Suggestions for improvement

Educators should avoid advising learners to skip certain topics, as this approach can negatively impact overall performance. Candidates should be encouraged to attempt lower-order cognitive questions, which are more accessible and can contribute to higher overall marks.

- (a) Q4.1: Teachers must unpack the meaning of 'defensive' in the context of business and impress upon learners that defensive strategies are only used by businesses as a last resort to continue operating. Administer informal and formal assessment and remediation during the academic year. Research on businesses that applied these strategies is also useful to enhance the understanding of this concept.
- (b) Q4.2: Teachers must train learners to read the wording of questions carefully and underline key terms such as 'process' or 'evaluation' to avoid misinterpretation. Learners must be made aware of the importance of evaluating strategies to stimulate interest in how businesses discharge this process. It must be emphasised that the steps in strategy evaluation form part of the strategic management process. Teachers must guide them on how to unpack these steps.
- (c) Q4.4: The 'purpose' of the COIDA focuses on how this Act promotes safety in the workplace while 'impact' explains the advantages and/or the disadvantages of the Act. Teachers must ensure that learners develop an understanding of this content. It must be noted that the following statements were elaborated on during the marking standardisation meeting:
  - *Domestic workers can now claim compensation for work-related injuries/illnesses.*
  - *Employers make annual contributions to COIDA, which may result in cash flow problems.*
 Teachers are advised to update this fact in all resources.
- (d) Q4.5: Teachers can conduct a baseline assessment of the challenges posed by social factors, and ways in which businesses can deal with this factor should be conducted as this content forms part of the Grade 10 content. Teachers must identify and close content gaps using the DBE notes and other credible resources. Subject advisors must ensure that this content is adequately taught and assessed in Grades 10 and 12.

- (e) Q4.6: A table could be used when teaching all content covered under the subtopic Induction to enable learners to have a clear understanding of the differences between the 'purpose' and 'benefits' of induction. Furthermore, learners must know that the purpose of induction is to plan the activities that will be conducted by businesses to induct new employees. On the other hand, the benefits of induction are the results of the planned activities that were done during the actual induction process.
- (f) Q4.7: Explain the meaning of the UIF in the context of a business and reinforce that the UIF is a compulsory benefit designed to provide short-term relief to workers who become unemployed, or who are unable to work due to illness, maternity or adoption leave. Learners should be taught that UIF does not form part of fringe benefits, but is a benefit required by law.
- (g) Q4.8.1: All TQM elements that are outlined in the *2021 Examination Guidelines* should be adequately taught using practical examples and video clips on how large businesses implement each TQM element. Learners could be requested to conduct research on businesses that have implemented these elements successfully. Teachers must emphasise that adequate financing and capacity refers to ensuring that a business has sufficient financial resources to successfully implement TQM.
- (h) Q4.9: Teachers must remind learners that quality circles are small groups of employees who meet regularly to identify, analyse and solve problems relating to quality and that their role must be elaborated on when responding to questions related to quality circles. It must be explained to learners that the role of quality circles is not to be involved in the actual production of a product, but rather on improving production by investigating the problems related to quality. They also suggest solutions aimed at monitoring/reinforcing strategies to continuously improve the quality of products.

## **SECTION C: ESSAY QUESTIONS**

### **QUESTION 5: BUSINESS ENVIRONMENT: LEGISLATION**

The average performance of candidates in Q5 declined by 13% from 30% in 2024 to 17% in 2025. The four subquestions in this question appeared in previous NSC examinations across Sections B and C. Recurring, correctable errors in essay writing and formatting need to be remediated with learners. In addition, the integration of originality in essay responses remains an area requiring further intervention. It should also be noted that legislation continued to be a challenging topic for many candidates.

#### **Common errors and misconceptions**

- (a) In Q5.1 and Q5.6 a few candidates repeated the statements that were used in the preamble of the question as their introduction/conclusion to the essay. Some candidates' responses were not relevant to any of the four subquestions that were asked in this question. This challenge persists as it was also reported in previous national diagnostic reports.
- (b) In Q5.2 candidates confused the purpose of the Employment Equity Act (EEA) with the impact of this Act, and many provided only a general overview of the Act.
- (c) In Q5.3 some candidates confused the impact of the EEA with either the ways to comply with this Act or its purpose.
- (d) In Q5.4 candidates confused the ways in which businesses comply with the Employment Equity Act (EEA) with the ways in which businesses address diversity

issues, such as race and gender. As a result, many responses did not meet the requirements of the question and marks were forfeited.

- (e) Candidates showed little to no understanding of the penalties for non-compliance with the EEA in Q5.5 as many responses were limited to 'heavy fines' or 'imprisonment' without further explanation.
- (f) Many candidates forfeited marks for originality as they could not provide examples based on recent information or current trends and developments. Some examples were also not relevant to the four subquestions while other examples were older than two years.

### **Suggestions for improvement**

- (a) Q5.1 and Q5.6: Learners must be advised to respond to at least any TWO of the four subquestions in the introduction and at least one of the four subquestions in the conclusion. Verbatim quoting of definitions/facts from credible sources is strongly discouraged. Learners must be advised to refrain from repeating words or statements that were used in the question paper. Instead, they must be encouraged to write creative responses that will not be repeated either in the body or conclusion. Learners must take note that no marks will be awarded for layout if the headings 'Introduction' and 'Conclusion' are not supported by an explanation.
- (b) Q5.2: Teaching and learning must focus on the purpose of the Employment Equity Act (EEA) in terms of how this Act promotes equal opportunity and fair treatment in employment by eliminating unfair discrimination in the workplace. Teachers must clarify the distinction between the purpose and the impact of the Act.
- (c) Q5.3: Learners must ensure that they gain a sound understanding of the purpose of the EEA as this will enable them to understand the impact of this Act on businesses. This content must be adequately assessed through direct and indirect questions during the academic year.  
It must be noted that the following statement was elaborated on during marking standardisation meeting:
  - *Treat employees fairly and promote/provide equal opportunities in the workplace.* Teachers are advised to update this fact in all resources.
- (d) Q5.4: Compliance with the EEA refers to legal obligations such as developing employment equity plans, submitting reports, eliminating unfair discrimination and implementing affirmative action measures. Dealing with diversity issues refers to broader organisational practices that go beyond compliance, such as promoting inclusivity, managing cultural differences and fostering respect among employees.
- (e) Q5.5: Learners must be made aware that penalties for non-compliance with each Act are punitive in nature and that businesses may lose a lot of money on heavy fines and legal costs. They must also understand that penalties for non-compliance with each Act are not the same, as this depends on the nature and context of each Act.  
It must be noted that the following statement was elaborated on during the marking standardisation meeting:
  - *The labour inspector could issue a compliance order to businesses to stop operating should they be found guilty of illegal practices.* Teachers are advised to update this fact in all the resources.

- (f) Encourage learners to conduct research online and bring newspapers to class to identify and discuss current trends and developments related to the lesson. This will allow for more interactive and interesting lessons.
- (g) Teachers must explain the nature of the verbs used and that when the instruction is to 'explain', 'describe', 'discuss', 'recommend', 'suggest', 'advise', etc. multiple well-explained facts are required, not only a single repeated idea.

### **QUESTION 6: BUSINESS OPERATIONS: HUMAN RESOURCES FUNCTION**

The analysis of performance in Q6 reveals a concern with candidates experiencing the largest decline in the examination, a 24% decrease. Q6 declined by 24% from 66% in 2024 to 42% in 2025. It is also alarming that candidates experienced this huge decline in Business Operations, as the human resources content that was assessed is one of the most popular subsection. A stronger performance had been expected in Q6, as Business Operations is a popular topic among candidates and has been assessed in various forms in both Sections B and C of previous NSC papers. While candidates were generally able to answer two to three subquestions in the essay, their responses lacked the necessary requirements in other subquestions.

#### **Common errors and misconceptions**

- (a) In Q6.1 some candidates' responses in the introduction were based on the meaning of recruitment rather than two of the four subquestions asked. Others copied sentences that were in the preamble as their introduction. This challenge persists despite recommendations made in the past diagnostic reports.
- (b) In Q6.2 some candidates provided incomplete responses although they were expected to write full sentences on the recruitment procedure. Some confused this content with the selection procedure. It was envisaged that candidates' performance would improve on this content as it had been assessed many times in previous NSC papers and provincial preparatory examinations.
- (c) Good performance was noted in Q6.3 even though some candidates confused the impact of internal recruitment with either the impact of external recruitment or fringe benefits. A good performance was expected in this question as it had appeared in many past NSC November examinations.
- (d) Candidates performed well in Q6.4, however, some candidates' responses were about the role of the interviewer during the interview, while others responded with the role of the interviewee during the interview.
- (e) In Q6.5 the legal requirements of the employment contract were confused with the aspects of the employment contract. This question had been assessed many times in past NSC exam papers.
- (f) Originality remains a challenge to many candidates as they could not give recent examples that were related to the content asked. Most candidates listed examples of fringe benefits; hence they forfeited two marks for originality.

#### **Suggestions for improvement**

- (a) Q6.1 & Q6.6: Learners must be advised to respond to at least any TWO of the four subquestions in the introduction and at least one of the four subquestions in the conclusion. Verbatim quoting of definitions/facts from credible sources is strongly

discouraged. Learners must be advised to refrain from repeating words or statements that were used in the question. Instead, they must be encouraged to write creative responses that will not be repeated either in the body or conclusion. Learners must take note that no marks will be awarded for layout if the headings 'Introduction' and 'Conclusion' are not supported by an explanation.

- (b) Q6.2: Teachers must scaffold the activities of the Human Resources function and make learners aware that the recruitment procedure is the first human resources activity. Businesses must initially compile a job analysis, decide on the type of recruitment method, and advertise the vacant position in the appropriate media. The selection procedure is done after the recruitment procedure.
- (c) Q6.3: Teachers must focus on how businesses benefit from advertising available posts internally. A table on the differences between the impact of internal and external recruitment methods could be drawn to illustrate the differences between these concepts. Teachers should stimulate debates on this content to enhance understanding. It must be noted that the following statement was elaborated on during the marking standardisation meeting:
  - *Cheaper/Quicker to fill the post as this method focuses on promoting existing employees.*
 Teachers are advised to update this fact from all the resources.
- (d) Q6.4: Learners must understand the difference between an interviewer and interviewee before proceeding to the role of each party. Teachers can use the three columns approach where they outline the roles of the interviewer before and during the interview and emphasise that the role of the interviewee is only during the interview. Role playing and demonstrations are effective to enhance understanding in this regard.
- (e) Q6.5: Learner responses on the legal requirements of the employment contract should focus on what makes the employment contract a legal document and not on the aspects that should be included in the employment contract. Teachers must focus on the role of the employer and employee in the contract. Learners must be requested to link some aspects of an employment contract with the legal requirements so that they are able to formulate full sentences on this content.
- (f) Teachers must advise learners to conduct research on the content taught to enable them to develop insight and come up with good examples that are based on recent information, current trends and developments not older than two (2) years old.

#### 4.5 DIAGNOSTIC QUESTION ANALYSIS OF PAPER 2

The graphs presented below are based on data from a random sample of candidates in the different provinces. Although these graphs may not accurately reflect national averages, they are helpful in determining the relative degree of challenge of each question, as experienced by candidates.

Paper 2 comprises ten subtopics that assess Business Ventures and Business Roles. The 2025 cohort presented a 10% decline in performance in Q1, decreasing from 61% in 2024 to 51% in 2025. This question consisted of ten subquestions assessing Business Ventures and Business Roles, including subquestions that had appeared in previous NSC examination papers.

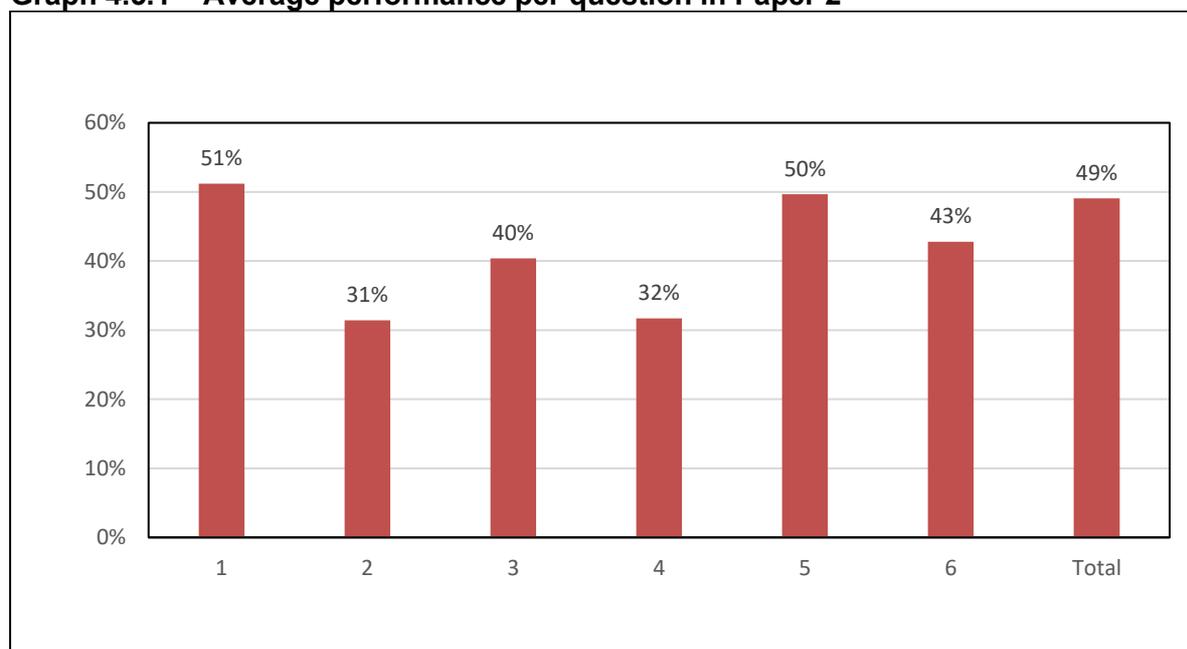
The average performance of the 2025 cohort in Business Ventures, which was assessed in Q2 and Q5, declined compared to 2024. The data indicates a moderate decline of 13% in

candidates' performance in Q2 (Section B), decreasing from 44% in 2024 to 31% in 2025. Similarly, the average performance in Q5 (Section C) declined from 59% in 2024 to 50% in 2025, representing a 9% decrease over the two-year period. This decline may be attributed to candidates placing greater emphasis on Business Roles and less on Business Ventures. The findings suggest that candidates in the 2025 cohort had notable preparatory gaps in responding to questions on Business Ventures.

Q4, the miscellaneous question assessing both main topics, is divided into 20 marks for Business Ventures and 20 marks for Business Roles. Data indicates an 9% decline in overall performance, from 59% in 2024 to 50% in 2025. This decline is possibly attributed to candidates focusing more on Business Roles at the expense of Business Ventures, which impacted their overall performance.

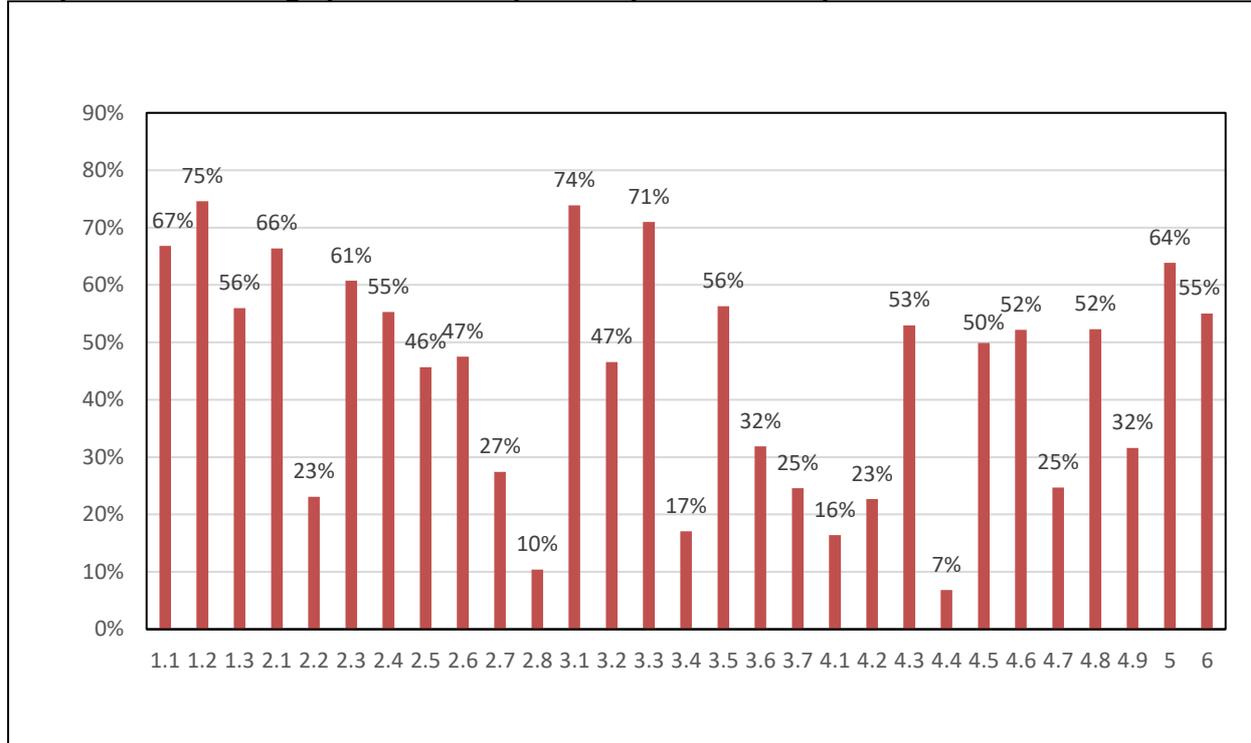
It should be noted that candidates' performance in Business Roles also declined in 2025 in both Q3 and Q6. The average percentage in Q3 (Section B) decreased by 7%, from 47% in 2024 to 40% in 2025. In the essay question, Question 6 (Section C) recorded the most substantial decline among all six questions examined in the paper, decreasing by 16% from 59% in 2024 to 43% in 2025. This downward trend indicates that there is considerable need for improvement in the more popular topic of Business Roles.

**Graph 4.5.1 Average performance per question in Paper 2**



Q	Topic
1	Compulsory
2	Business Ventures
3	Business Roles
4	Miscellaneous Topics
5	Business Ventures (Investment: Insurance)
6	Business Roles (Human Rights, Inclusivity and Environmental Issues)

**Graph 4.5.2 Average performance per subquestion in Paper 2**



Sub-Q	Topic	Sub-Q	Topic
1.1–1.3	Short questions	3.7	Bus Roles: Impact of the nominal group technique
2.1	Bus Vent: Factors that should be considered when making investment decisions	4.1	Bus Vent: Examples of non-insurable risks
2.2	Bus Vent: Meaning of excess as an insurance concept	4.2	Bus Vent: Types of investment opportunities
2.3	Bus Vent: Functions of the JSE	4.3	Bus Vent: Difference between management and leadership
2.4	Bus Vent: Leadership styles	4.4	Bus Vent: Advantages of a personal liability company
2.5	Bus Vent: Role of personal attitude in successful leadership	4.5	Bus Vent: Factors presenters should consider during the presentation
2.6	Bus Vent: Aspects to be considered when designing a multimedia presentation	4.6	Bus Roles: CSI focus areas
2.7	Bus Vent: Impact of Government/ RSA Retail Savings Bonds	4.7	Bus Roles: Importance of team dynamic theories in improving team performance
2.8	Bus Vent: Contribution of management as a criterion to the success and/or failure of a public company	4.8	Bus Roles: Ways in which businesses can create an environment that promotes creative thinking
3.1	Bus Roles: Problem-solving steps	4.9	Bus Roles: Dealing with the pricing of goods in rural areas as a type of unethical business practice
3.2	Bus Roles: Benefits of diversity in the workplace	5	Bus Vent: (Investment: Insurance)
3.3	Bus Roles: King Code principles	6	Bus Roles: (Human rights, inclusivity and environmental issues.
3.4	Bus Roles: Communication as a criterion for successful team performance		
3.5	Bus Roles: Conflict resolution		
3.6	Bus Roles: Advantages of CSR for businesses		

## 4.6 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 2

### QUESTION 1: COMPULSORY (MULTIPLE-CHOICE, CHOOSING CORRECT WORDS AND MATCHING ITEMS)

Candidate performance in this question declined from 61% in 2024 to 51% in 2025. This decline suggests that teachers and learners should implement more effective strategies and approaches to enhance performance in Question 1, especially mastering subject terminology. Q1.2 showed a modest improvement of 3%, rising from 72% in 2024 to 75% in 2025. However, a slight decline was observed in Q1.3, where performance decreased from 61% in 2024 to 56% in 2025. These subquestions comprised multiple-choice questions, completion of statements, and matching items in Columns A and B.

#### Common errors and misconceptions

- a) In Q1.1 some candidates responded with full sentences instead of the required alphabetical letters. This mistake was unexpected, as the correct method for answering multiple-choice questions in Business Studies has been established since the introduction of the NSC examinations in 2008.
- b) In Q1.1.1 a few candidates selected incorrect options due to a poor understanding of simple interest calculations. This may be attributed to not using calculators and incorrectly applying the compound interest formula, instead of the required simple interest formula.
- c) In Q1.1.2 some candidates selected Option B instead of the correct answer, Option D. This suggests that some candidates were still unable to distinguish between limited and unlimited liability, despite this concept having been assessed previously in Sections A, B, and C.
- d) In Q1.1.4 some candidates chose Option D and Option A instead of the correct answer, Option B. This suggests that candidates struggled to distinguish between the five stages of team development, even though this content is taught progressively from Grades 10 to 12.
- e) In Q1.2 a few candidates paraphrased the given terms instead of following the clear instructions to provide the specific required responses, showing a misunderstanding of how to interpret question instructions. This issue persisted despite this style of questioning being used in Business Studies examinations for several years.
- f) In Q1.2.2 some candidates incorrectly wrote 'non-profit' instead of the correct term 'state owned'.
- g) Most candidates incorrectly chose Option G instead of the correct Option J for Q1.3.2. This question, assessing Business Ventures, showed that candidates were not adequately prepared for the topic.
- h) Most candidates incorrectly chose Option B instead of the correct Option H in Q1.3.3. Many confused the average clause with 'reinstatement', demonstrating a misunderstanding of insurance terminology.
- i) In Q1.3.4 candidates confused 'professional' and 'ethical' behaviour, showing that they could not distinguish between professional and ethical behaviour. This indicated a lack of understanding of the key differences between these concepts.

- j) In Q1.3.5 some candidates incorrectly chose Option E instead of Option A, showing they still struggled to distinguish between 'grievance' and 'conflict'. This issue persisted despite the topic being thoroughly tested in past examinations (Sections A, B and C).

### **Suggestions for improvement**

- (a) Teachers should emphasise the importance of strict adherence to the prescribed response format in Section A, particularly for multiple-choice and matching items questions. Regular instruction, following exercises, should be incorporated to reinforce correct answering techniques and prevent an unnecessary loss of marks.
- (b) Learners must apply the correct formula when calculating simple interest and clearly distinguish between simple and compound interest. Continuous practice through varied calculation activities is essential to develop and improve this skill.
- (c) Teachers should clearly explain the differences between 'limited' and 'unlimited' liability, preferably using a tabular format. These distinctions should be reinforced using verified resources such as past examination papers, DBE notes and the DBE textbooks.
- (d) Learners must understand the correct sequence of team development stages, with storming following forming, and be taught to distinguish these stages to avoid confusing forming and storming, as storming comes immediately after forming and can negatively affect team performance if unmanaged.
- (e) Teachers should emphasise how this type of question must be answered and regularly use past exam papers and to illustrate the required skill. Learners must be trained to write the exact words as they appear in the text-box.
- (f) Teachers should clearly distinguish between a 'state-owned company' and a 'non-profit company'. Emphasising the different characteristics of these forms of ownership and using regular informal terminology assessments will help ensure learners understand and retain the concepts.
- (g) Learners should engage in varied assessment activities and understand both the types and rights of preference shareholders to answer questions of all levels. Emphasis must be placed on the meaning of each type of preference share, particularly regarding the dividends paid to shareholders.
- (h) Learners must understand that the average clause applies to under-insurance, meaning the pay-out is proportional to the insured value and cannot exceed the actual loss, while reinstatement applies when assets are over-insured. Regular revision, use of past papers, and integration of exam-style questions should be included in teaching and learning to reinforce concepts, address weak areas and build learner confidence.
- (j) Teachers should clearly explain the differences between 'professional' and 'ethical' behaviour using a tabular format and verified sources such as past exam papers, DBE notes and the DBE textbook. Regular revision is essential, as Section A offers learners key opportunities to score marks.
- (k) Teachers should clearly explain the differences between 'grievance' and 'conflict' using a tabular format. Regular revision of terminology is essential, as Section A provides key opportunities for learners to score marks.

**SECTION B: LONGER AND PARAGRAPH QUESTIONS, USING CASE STUDIES AND INFORMATION (THREE QUESTIONS TO BE ANSWERED)****QUESTION 2: BUSINESS VENTURES**

A significant decline of 13% was recorded in candidates' performance in Q2 (Section B), decreasing from 44% in 2024 to 31% in 2025. Candidates were expected to perform adequately in this question, as all subtopics of Business Ventures were evenly assessed in line with the prescribed content distribution and appropriate cognitive levels. This decline indicates not only inadequate preparation for Q2, but also selective studying and underlying content gaps in Business Ventures. The question included only two indirect questions, one follow-on question, as well as a question assessing the ability to quote, where candidates could have earned marks.

**Common errors and misconceptions**

- (a) Overall performance in Q2.1 was good, although some candidates confused 'investment decision factors' with 'investment opportunities', leading to irrelevant responses.
- (b) Q2.2 was poorly answered, with many candidates unable to correctly explain the meaning of 'excess' as an insurance concept. Responses were often vague or incomplete, with candidates confusing 'excess' with 'insurance in general', 'premium', 'average clause' and 'over- or under-insurance'. Many also used the terms 'insurer' and 'insured' interchangeably or focused on the advantages of insurance instead of the concept tested. This pattern indicated insufficient preparation for the Business Ventures topic and limited understanding of excess.
- (c) Adequate performance was noted in Q2.3 on the functions of the JSE, although some candidates provided incomplete responses. The use of outdated resources was also evident among a number of candidates. This content has appeared in multiple past papers and candidates should not provide phrases in their responses.
- (d) Q2.4 was generally well answered, with most candidates correctly identifying the autocratic leadership style, though some were confused by the scenario and incorrectly chose situational, transactional or transformational styles. This confusion caused several candidates to forfeit marks for both the leadership style and the corresponding motivation.
- (e) Candidates performed satisfactorily in Q2.5. However, some responses were vague or generalised, describing general, positive attitudes or the characteristics of a good leader instead of the role of personal attitude in successful leadership. As a result, marks were forfeited for incomplete or off-topic answers.
- (f) Q2.6.1 was well answered, with many candidates correctly quoting the required aspects for designing a multimedia presentation. Some candidates forfeited marks for quoting a distractor or providing incomplete quotes. Others confused aspects that must be considered when designing a multimedia presentation, with factors to consider before the presentation.
- (g) Q2.6.2 was generally well answered, but some candidates confused it with factors to consider before, during or after a presentation. Marks were forfeited for incomplete or overly brief responses.

- (h) Q2.7 was poorly answered, with many candidates confusing 'RSA Retail Savings Bonds' with 'fixed deposits' or 'unit trusts'. Responses were often incomplete or combined multiple facts, and candidates failed to state the advantages or disadvantages of the bonds.
- (i) Q2.8 was poorly answered, with many candidates providing vague and general responses. Some candidates confused 'public companies' with 'private companies' or wrote about management in general rather than its contribution to success or failure. Others focused on characteristics of public companies.

### Suggestions for improvement

- (a) Teachers should use the *2021 Examination Guidelines* which clearly outline the factors to consider when making investment decisions. Learners should regularly practise the correct terminology, supported by ongoing informal assessment.
- (b) Teachers should clearly explain 'excess' as part of the insurance contract, emphasising that it is paid upfront by the insured when a claim is lodged. Learners must distinguish between key insurance concepts using accurate definitions, practical examples and varied assessment strategies. Teachers should apply the latest marking guidelines and DBE notes and encourage full sentence responses when elaboration is required.  
It must be noted that the following statement was elaborated on during the marking standardisation meeting:
  - *It is not paid out to the insured when a claim is settled but is recovered from the liable party by the insurer.*
 Teachers are advised to update this fact from all the resources.
- (c) Teachers should ensure that learners write full sentences when explaining JSE functions and understand mark allocation for action verbs. Refer to recent marking guidelines, especially Note no. 12 of the notes to markers, for the allocation of ticks.
- (d) A clear explanation and distinction of all four leadership styles, as outlined in the *Examination Guidelines (2021)*, should be regularly revised to improve learners' understanding. Learners must also be taught to quote full sentences from scenarios where applicable.
- (e) Teaching and revision should emphasise how a positive attitude contributes to successful leadership. Discussions must focus on clearly explaining the role of personal attitude in leadership. Integrate application-based activities and informal assessment to familiarise learners with exam questions, while clearly explaining requirements and addressing common errors from diagnostic reports.
- (f) Teachers should emphasise and frequently revise the key aspects of designing a multimedia presentation using scenario-based questions. Learners must also be taught to quote full sentences where appropriate.
- (g) Teachers should emphasise the key aspects of designing a multimedia presentation, clarifying how they differ from factors considered before and during the presentation. Scenario-based questions should be used frequently to prepare learners for their formal assessments.
- (h) The differences between 'RSA Retail Savings Bonds', 'unit trusts' and 'fixed deposits' must be clearly explained using key terms. Learners should research this investment type and analyse recent newspaper articles to identify advantages and disadvantages.

Case studies on RSA Retail Bonds should be integrated into teaching for deeper understanding.

- (i) Teachers should first explain each criterion and how it contributes to the success or failure of each form of ownership. Recap characteristics, advantages and disadvantages, showing their link to success or failure. Learners should practise activity-based questions regularly to reinforce understanding.

### **QUESTION 3: BUSINESS ROLES**

Q3 assesses Business Roles, a topic that is more commonly chosen by candidates. The average percentage in Q3 (Section B) decreased by 7%, from 47% in 2024 to 40% in 2025, despite expectations of improved performance and steady growth. Q3 included one indirect question with one indirect follow-on question. In addition, other questions in Q3 referenced previous NSC examination papers in which similar questions were assessed.

#### **Common errors and misconceptions**

- (a) Q3.1 was generally well answered, with most candidates able to list the problem-solving steps. Some candidates, however, confused these steps with the strategic management process, conflict resolution steps or steps in strategy evaluation in their responses. Overall, learners need clearer differentiation between problem-solving steps and other procedures.
- (b) Q3.2, the performance was satisfactory, but a few candidates confused the benefits of diversity with the advantages of creative thinking. In some cases, responses were often vague or incomplete. This persistent error indicates a limited understanding of the question requirements, even though it has appeared in several past question papers.
- (c) Many candidates could not identify responsibility as a King Code principle from the given scenario in Q3.3.1. This affected their responses to Q3.3.2, a follow-on question. Some responses were based on 'transparency and accountability' instead of 'responsibility'.
- (d) Q3.4 was poorly answered, with many candidates giving vague or incomplete responses. Most learners lacked content knowledge and confused 'communication' with 'general team performance characteristics'. This indicates a lack of understanding of communication as a criterion for successful team performance, even though this question has appeared in Sections B and C of past examination question papers.
- (e) Many candidates answered Q3.5.1 well, but some forfeited marks by incorrectly naming the cause of conflict or quoting a distractor from the scenario. Others lost marks for not providing a full quotation that captured the required essence.
- (f) In Q3.5.2 some candidates forfeited marks by confusing 'handling conflict' with the 'grievance procedure'. Others gave incomplete responses or short phrases instead of full sentences. Candidates were expected to perform well in Q3.5.2 but using outdated resources and providing incomplete sentences led to them forfeiting marks, as highlighted in the 2024 Diagnostic Report.
- (g) Many candidates confused the advantages of CSR for businesses with that of the community in Q3.6. This error, as noted in previous Diagnostic Reports, led to vague or incomplete responses and mixed facts. This content has been assessed in Section B and Section C in multiple past examination question papers.

- (h) In Q3.7 many candidates confused the impact of the nominal group technique with its application or with other methods such as brainstorming and the Delphi technique. Responses were often vague, incomplete or focused on steps rather than the impact, leading to marks being forfeited.

### **Suggestions for improvement**

- (a) Updated DBE notes and marking guidelines should be used to teach the problem-solving steps. Teachers should explain the difference between the 'problem-solving steps', which address business problems, and the 'strategic management process', which focuses on developing strategies for challenges.
- (b) The benefits of diversity in the workplace should not be confused with the advantages of creative thinking. This distinction must be clearly explained to learners through detailed discussions. Teachers should provide examples and guide learners to research businesses that benefit from diversity in the workplace. Regular informal assessment in this regard is also important.
- (c) Teachers should develop a mind-map to illustrate the meanings of the King Code principles as outlined in the *2021 Examination Guidelines*. Suitable practical examples should be used to enhance teaching and learning of the King Code principles.
- (d) In-depth teaching should focus on explaining all criteria for successful team performance and the activities involved in each. Teachers should provide source-based and direct questions to reinforce understanding and model full-sentence responses. Opportunities for practice and discussion should be created to ensure learners grasp the meaning and application of each criterion.
- (e) The concept of 'conflict' should be explained using practical workplace examples. Learners must be taught to quote full sentences to gain full marks. Teaching should focus on explaining the causes of conflict in the workplace and applying action verbs such as 'outline', 'describe', 'explain' and 'discuss'.
- (f) Teachers must ensure learners write full sentences when explaining how businesses handle workplace conflict and clearly distinguish this from the grievance procedure. Learners should understand that conflict resolution involves informal techniques between employees, while the grievance procedure addresses the aggrieved employee formally.
- (g) Teachers should use project-based tasks and debates to help learners research and present the impact of CSR on businesses and communities. Emphasis must be placed on clearly explaining the differences between the advantages of CSR for businesses and communities.
- (h) Learners must first understand how businesses apply the nominal group technique to solve complex problems before exploring its advantages and disadvantages. Clear distinctions between 'nominal group technique', 'brainstorming' and 'Delphi techniques' must be emphasised, highlighting differences in application and impact.

### **QUESTION 4: MISCELLANEOUS TOPICS**

This question assessed the two main topics of the paper through direct and indirect short questions, with each topic worth 20 marks. The average performance in the Business Ventures component of Q4 was significantly lower than that of the Business Roles component,

continuing a trend of underperformance in Business Ventures observed over the past several years. Notably, Q4.3 recorded a performance of 53%, the highest among all subquestions across both main topics of Q4. Overall, candidates performed better in the Business Roles component than in Business Ventures. This recurring underperformance in Business Ventures, as highlighted in previous Diagnostic Reports, indicates a persistent knowledge and preparation gaps that requires targeted intervention.

### Common errors and misconceptions

- (a) Many candidates confused 'insurable' and 'non-insurable risks' in Q4.1, often citing examples such as fire and theft instead of the required non-insurable risks. Marks were also lost through vague or incorrect responses, e.g. writing 'shoplifting' instead of 'shoplifting during business hours.' Overall, Q4.1 was poorly answered, with many irrelevant or incomplete responses and several left blank, despite this topic being assessed across all sections of past papers.
- (b) Many candidates struggled in Q4.2.1, often naming forms of investment or unrelated concepts instead. Common errors included confusing debentures with shares, loans, or venture capital, and mixing investment opportunities with decision-making factors.
- (c) Performance in Q4.3 was generally fair, with many candidates able to explain the differences between 'management' and 'leadership'. However, some candidates confused the two concepts by swapping facts or mixing management and leadership roles.
- (d) In Q4.4 many candidates demonstrated a weak understanding of the advantages of a personal liability company and often confused them with those of other forms of ownership. Responses were generally vague, inaccurate and incomplete, resulting in very low overall performance.
- (e) In Q4.5 most candidates performed well, but some confused factors to consider during a presentation with those for handling feedback. A few responses were incomplete, resulting in lost marks. Some learners focused on factors to consider before the presentation instead of what is required during the presentation.
- (f) In Q4.6 many candidates performed well and were able to name the focus areas of CSI. However, some wrote 'rural areas' instead of 'rural development' and 'employment' instead of 'employees', losing marks. A few candidates confused 'CSI focus areas' with 'CSR programmes', despite examples being provided in the *2021 Examination Guidelines*.
- (g) In Q4.7 many candidates gave vague or incomplete responses and confused the question with team performance, creative thinking or workplace diversity. Some merely listed theories without explaining their relevance in improving teamwork. Overall, learners showed limited understanding of team dynamics. This question has appeared in past examination question papers on several occasions, highlighting persistent content and knowledge gaps.
- (h) In Q4.8.1 many candidates performed well in quoting the ways in which businesses can create an environment that promotes creative thinking, but some provided a distractor or incomplete responses. Some confused 'ways' in which businesses can create an environment that promotes creative thinking in the workplace with 'benefits' of creative thinking. However, in Q4.8.2, the follow-on question, there were candidates who provided inaccurate and vague responses.

- (i) In Q4.9 most candidates struggled to provide the expected responses, often explaining the meaning or challenges of pricing in rural areas instead of ethical ways to address it. Some candidates confused 'pricing in rural areas' with other 'unethical business practices', such as unfair advertising. Overall, performance was poor, reflecting a lack of understanding of how to deal with pricing in rural areas as an unethical business practice.

**Suggestions for improvement**

- (a) Teachers should use comparative tables with practical examples to clearly distinguish between 'insurable' and 'non-insurable risks', supported by updated notes. Teachers should explicitly explain that non-insurable risks cannot be transferred to insurers and must be managed directly by businesses. Using real-world case studies will make insurance concepts more engaging and easier for learners to understand.
- (b) Teaching should focus on the investment opportunities outlined in the *2021 Examination Guidelines*, to ensure that learners can identify and explain them in scenarios and statements. Clear distinctions between different investment opportunities must be emphasised. Regular exposure to source-based questions, newspaper clippings, and varied assessment tasks will help prevent confusion with factors to consider when making investment decisions.
- (c) Teaching should provide clear and detailed explanations of management and leadership using demonstrations and practical examples. Learners must understand that leaders communicate directly with employees, while managers communicate through formal management structures. Notes should be structured and updated to cover management before leadership, and learners encouraged to write full, clear sentences.

It must be noted that the following statements were elaborated on during the marking standardisation meeting:

<b>MANAGEMENT</b>	<b>LEADERSHIP</b>
<i>Management is instructional in their approach by guiding/training/directing employees.</i>	<i>Leadership is inspirational in their approach by energizing/motivating/encouraging employees.</i>
<i>Management is task orientated and focuses on completing goals/deadlines/processes.</i>	<i>Leadership is people orientated and focuses on building relationships/morale/development.</i>
<i>Management 'does things right' by focusing on efficiency/ execution.</i>	<i>Leadership 'does the right things' by focusing on the vision/strategy.</i>
<i>Manages the 'how' and 'when' regarding processes/timelines of a task.</i>	<i>Leaders ask 'what' and 'why' to foster a deeper understanding for improvement.</i>

Teachers are advised to update this fact in all the resources.

- (d) Teachers should recap forms of ownership from Grades 10 and 11, conducting baseline assessments to ensure understanding. Clear distinctions must be made between 'personal liability companies' and 'private companies'. Informal and formal assessments should be regularly used to reinforce knowledge and address persistent poor performance.

It must be noted that the following statement was elaborated on during the marking standardisation meeting:

- *'... has continuity of existence/perpetual/ unlimited lifespan as the lifespan of the business is not dependent on the lifespan of the owners.'*

Teachers are advised to update this fact in all the resources.

- (e) Teachers should clearly distinguish between factors to consider before, during and after a presentation, using tables to illustrate the differences. Learners must be engaged in role play to practise these factors and provide feedback on areas for improvement. Full sentences should be used when advising on the factors to consider during a presentation. Learners must avoid vague and incomplete answers to earn full marks.
- (f) Teachers must emphasise the four CSI focus areas that are listed in the *2021 Examination Guidelines*. Integrate application-based activities and informal assessment to familiarise learners with exam questions, while clearly explaining requirements and addressing common errors from previous diagnostic reports.
- (g) Learners must understand the difference between 'team dynamic theories' and the 'characteristics of team development'. Teachers should emphasise that these theories help leaders understand team members' personality types to assign tasks more effectively. Understanding and applying team dynamic theories enables learners to explain how they contribute to successful teamwork.
- (h) Teaching should focus on how businesses can create an environment that promotes creative thinking, as outlined in the *2021 Examination Guidelines*. It should be emphasised that how to create an environment that promotes creative thinking differs from the benefits of creative thinking. Practical examples and demonstrations should be used to help learners understand and apply these strategies effectively in scenarios.
- (i) Teaching should focus on how each unethical business practice creates challenges and how businesses can address them. Learners must avoid simply defining unethical business practices. Scenario-based activities, case studies, and varied assessments should be used to strengthen learners' ability to apply knowledge in different contexts.

## **SECTION C: ESSAY QUESTIONS**

### **QUESTION 5: BUSINESS VENTURES: INVESTMENT INSURANCE**

The average performance of candidates in Q5 declined by 9%, from 59% in 2024 to 50% in 2025. The four subquestions in this question have appeared in previous NSC examinations across Sections B and C. Recurring, correctable errors in essay writing and formatting need to be reinforced with learners. In addition, the integration of originality in essay responses remained an area requiring further intervention.

#### **Common errors and misconceptions**

- (a) In Q5.1 (introduction) and Q5.6 (conclusion) candidates forfeited marks for the introduction and conclusion by repeating the preamble or quoting facts verbatim from notes and textbooks. Most responses were vague, generic or not linked to the four subquestions, resulting in lost marks. Some candidates wrote only 'Introduction' or 'Conclusion' without supporting statements, losing layout marks. Others included irrelevant content, such as types of compulsory insurance already assessed in Q5.3. This reflected a lack of understanding of how to frame answers in their own words, an issue highlighted in previous diagnostic reports.
- (b) In 5.2 most candidates performed well, correctly outlining the differences between 'insurance' and 'assurance'. However, some confused the concepts, mixing examples of short- and long-term insurance or writing about under- and over-insurance instead. A few responses were vague or incomplete, earning only part marks.

- (c) In Q5.3 most candidates were able to list the three types of compulsory insurance, but many provided incomplete, vague or inaccurate explanations. Some confused UIF with its benefits, COIDA with the Act, or listed non-compulsory insurance instead.
- (d) In Q5.4 most candidates struggled to provide the advantages of insurance for businesses, often explaining its meaning instead. Some responses focused on individual insurance or gave vague statements rather than business-specific benefits.
- (e) Many candidates struggled to explain the principles of insurance, particularly 'utmost good faith' and 'insurable interest', instead providing vague or incorrect responses. Some candidates confused 'insurable interest' with 'general financial interest' or 'investment gains'. Overall, limited understanding of these principles led to poor performance in Q5.5.
- (f) Candidates forfeited marks for originality because they either did not provide examples or used examples older than two years.

### Suggestions for improvement

- (a) Teachers should provide clear guidance on constructing introductions and conclusions that refer to subquestions being assessed. Learners must be taught to include at least two subquestions in the introduction and at least one subquestion in the conclusion. Verbatim quoting of definitions or facts from textbooks and credible sources must be discouraged, and learners should convert them to statements that read as introductions and conclusions. Informal assessments and essay-writing workshops should be conducted to strengthen learners' ability to write strong and effective introductions and conclusions. This information has been mediated in previous diagnostic reports.
- (b) Teachers should clearly distinguish between 'insurance' and 'assurance' using practical examples and real-life scenarios. The principle of indemnification applies to short-term insurance, while security relates to long-term assurance, and learners must understand this distinction. Full sentences should be used when outlining differences and tabulating the information can help link concepts effectively. Teaching all insurance concepts in detail enables learners to gain insight and apply knowledge accurately, avoiding confusion between the two.
- (c) Teachers should clearly distinguish between 'compulsory' and 'non-compulsory insurance', using tables or two-column comparisons to show the differences. Learners must be able to name and explain the three types of compulsory insurance. It must be noted that the following statements were elaborated on during the marking standardisation meeting:
  - Q5.3.1: *Employees contribute 1% of their basic wage to UIF as a financial safety net/back up funds.*
  - Q5.3.2: *The fund covers/compensates employees/domestic workers for occupational diseases and injuries incurred at work/the workplace.*
 Teachers are advised to update this fact in all the resources.
- (d) Teachers should focus on the advantages of insurance for businesses, using key words to help learners formulate clear, relevant statements. Emphasis must be placed on business-specific benefits, such as protection against losses from natural disasters or dishonest employees.
- (e) Teachers must thoroughly explain the four principles of insurance, particularly 'utmost good faith' and 'insurable interest', using practical examples and demonstrations.

Learners should be able to identify each principle in statements and scenarios and include relevant examples in their answers. Teachers are advised to use clear tables with key words to help learners remember and apply each principle effectively.

- (f) Learners must ensure that examples are specific, recent and directly related to the subquestions being assessed. Teachers should guide learners to include relevant, up-to-date examples to earn full marks for originality.
- (g) Subject advisors and teachers should develop strategies to support learners in writing with originality, emphasising the use of practical, recent examples from the past two years for originality. Learners must integrate 'originality examples' into any two of the four subquestions.

### **QUESTION 6: BUSINESS ROLES: HUMAN RIGHTS, INCLUSIVITY AND ENVIRONMENTAL ISSUES**

An analysis of performance in Q6 reveals a concerning trend, with candidates experiencing the largest decline in the examination, a 16% decrease, compared to a 9% decline in Q5. This represents the highest performance drop across all six questions. Stronger performance had been expected in Q6 as Business Roles is a popular topic among candidates and has been assessed in various forms in both Sections B and C of previous NSC papers. While candidates were generally able to answer two to three subquestions in the essay, their responses lacked depth in other subquestions.

#### **Common errors and misconceptions**

- (a) Many candidates forfeited marks in Q6.1 (introduction) and Q6.6 (conclusion) because they repeated the preamble or copied facts from notes instead of linking them to the essay questions. Some introductions and conclusions were vague, generic or addressed irrelevant content such as definitions of human rights and diversity. Some candidates wrote only 'Introduction' or 'Conclusion' without supporting statements, losing layout marks. Others included irrelevant content. This reflected a lack of understanding of how to frame answers in their own words, an issue highlighted in previous diagnostic reports.
- (b) In Q6.2 many candidates confused the responsibilities of employers with those of employees and health and safety representatives, resulting in forfeited marks. Responses often focused only on physical safety, ignoring mental health, stress management and well-being programmes. Practical examples such as PPE, training, audits or risk assessments were frequently omitted.
- (c) In Q6.3 many candidates were unable to correctly or fully identify the assessed human rights, often writing 'respect and dignity' instead of 'dignity', 'equality' instead of 'equity', and 'freedom of speech' instead of 'freedom of speech and expression'. Some candidates confused human rights with social, cultural or economic rights, leading to vague or incorrect responses. Others named the human rights correctly but failed to explain their application in the workplace.
- (d) In Q6.4 many candidates confused strategies to protect the environment and human health with employer responsibilities to promote workplace health and safety. Some responses focused on community well-being, employee duties or the role of health and safety representatives instead of the required strategies. Repetition of facts and incomplete sentences led to part marks or lost marks.

- (e) Candidates generally performed fairly in diversity issues, but many provided vague or incomplete responses. Marks were forfeited when the minimum employment age was incorrectly stated as 16 instead of 15, or when age limits were confused with 18 years. Some candidates gave incomplete answers under disability. Overall, clarity, accuracy and full explanations were needed to gain full marks.
- (f) Candidates forfeited marks for originality because they either did not provide examples or used examples older than two years..

### Suggestions for improvement

- (a) Teachers should provide clear guidance on constructing introductions and conclusions that refer to subquestions being assessed. Learners must be taught to include at least two subquestions in the introduction and at least one subquestion in the conclusion. Verbatim quoting of definitions or facts from textbooks and credible sources must be discouraged, and learners should convert them to statements that read as introductions and conclusions. Informal assessments and essay-writing workshops should be conducted to strengthen learners' ability to write strong and effective introductions and conclusions.
- (b) Learners must clearly distinguish between the responsibilities of employers, employees and health and safety representatives in promoting human health and safety in the workplace. Teachers are advised to use structured tables and examples to demonstrate the distinctions between these role players to avoid confusion. It must be noted that the following statements were elaborated on during the marking standardisation meeting:
  - *Provide a system where equipment is used only under the supervision of a designated trained worker.*
  - *Provide a working environment where the workers' health is not damaged by hazards in the production/processing/storage/transportation of materials or equipment.*
 Teachers are advised to update this fact in all the resources.
- (c) Teachers must use the *2021 Examination Guidelines* to update resources and assessments so learners can name and explain the six human rights and how to deal with them in the workplace. Explanations should focus on how businesses actively deal with these rights in the workplace. It must be noted that the following statements were elaborated on during the marking standardisation meeting:
  - *Q6.3.3: Managers should ensure that no employee suffers because of discrimination, such as paternity leave was implemented to give equal rights to fathers.*
  - *The business must ensure that its workers receive equal pay for work of equal value.*
  - *They should apply relevant legislation fairly on all levels of management, such as with new appointments they must adhere to the regulations of the EEA.*
  - *Q6.3.4: Businesses should allow open communication channels between management and employees by providing suggestion boxes for grievances.*
  - *Q6.3.6: Comply with safety legislation such as COIDA/OHSA regarding the safety and health of their employees.*
 Teachers are advised to update this fact in all the resources.
- (d) Learners should research current strategies businesses use to protect the environment and human health from current media. Emphasis should be placed on distinguishing

employer responsibilities from strategies businesses implement to protect the environment.

It must be noted that the following statements were elaborated on during the marking standardisation meeting:

- *According to the social rights of workers, businesses must test the water in the workplace to ensure that it is safe for human consumption.*
- *Businesses must:*
  - *Have a policy to minimise pollution and actively reuse, recycle and reduce waste*
  - *Reduce consumption of goods and services which are environmentally unfriendly, such as by investing in appropriate technology like clean solar or wind power*
  - *Educate workers about hygiene issues, such as the washing of hands.*
  - *Register or engage with recognised institutions/bodies that promote green peace/renewable energy and green energy*

Teachers are advised to update this fact in all the resources.

- (e) Teachers should integrate application-based activities and informal assessment to familiarise learners with examination questions, while clearly explaining requirements and addressing common errors highlighted in previous diagnostic reports. Class debates, group discussions and scenario-based activities should be used to develop learners' application and analytical skills. Learners must focus on the diversity issues outlined in the *2021 Examination Guidelines* and clearly explain how businesses can deal with them.

It must be noted that the following statements were elaborated on during the marking standardisation meeting:

- *Businesses should provide employment opportunities for people who are physically challenged in jobs that they can handle.*
- *Businesses must focus on the skills and work performance of the disabled worker, rather than his/her disability and possible problems that may occur/arise in the future.*

Teachers are advised to update this fact in all their resources.

- (f) Learners must be made aware that the examples they use must be specific, recent and directly related to the subquestions being assessed. Teachers should guide learners to include relevant, up-to-date examples to earn full marks for originality
- (g) Subject advisors and teachers should develop strategies to support learners in essay writing, emphasising the use of practical, recent examples from the past two years for originality. Learners must integrate 'originality examples' into any two of the four subquestions.

# CHAPTER 5

## ECONOMICS

The following report should be read in conjunction with the Economics Paper 1 and Paper 2 question papers for the NSC November 2025 examinations.

### 5.1 PERFORMANCE TRENDS (2021–2025)

The number of candidates who sat for the Economics examination in 2025 increased marginally by 631 compared to that of 2024.

There was also a slight improvement in the pass rate this year. Candidates who passed at the 30% level improved from 80,3 % in 2024 to 80,8 % in 2025. However, there was a slight decline in the pass rate at the 40% level over the past two years from 57,6 % to 55,3 %.

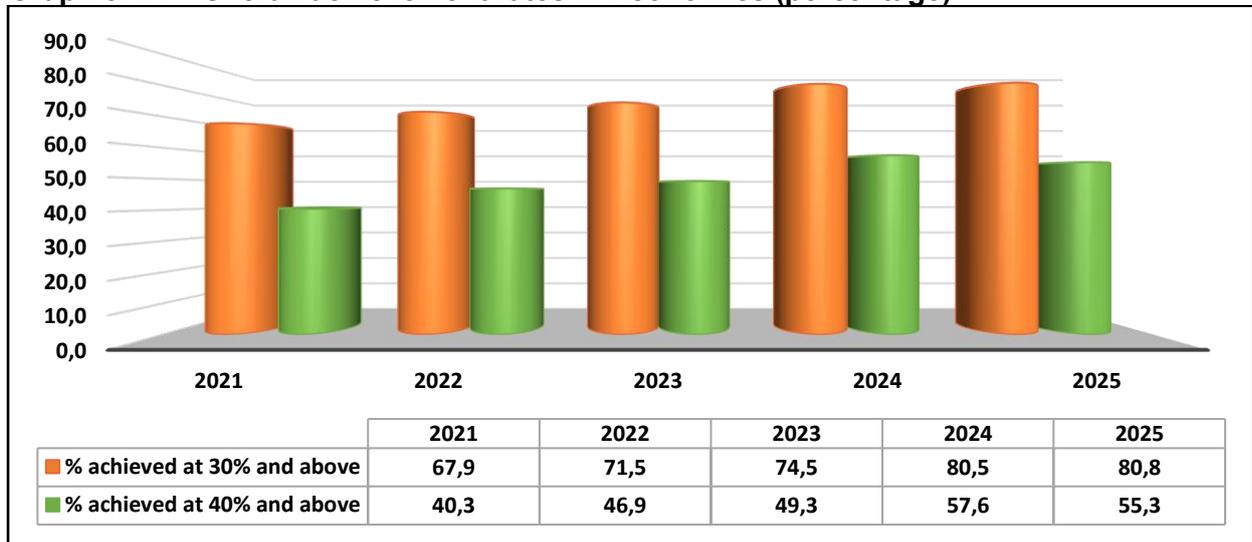
There was a decline in the percentage of distinctions (over 80%), which decreased from 3,3% in 2024 to 2,2% in 2025. Given the increase in the size of the 2025 cohort, this converts into a decrease in the total number of distinctions from 4 011 to 2 688.

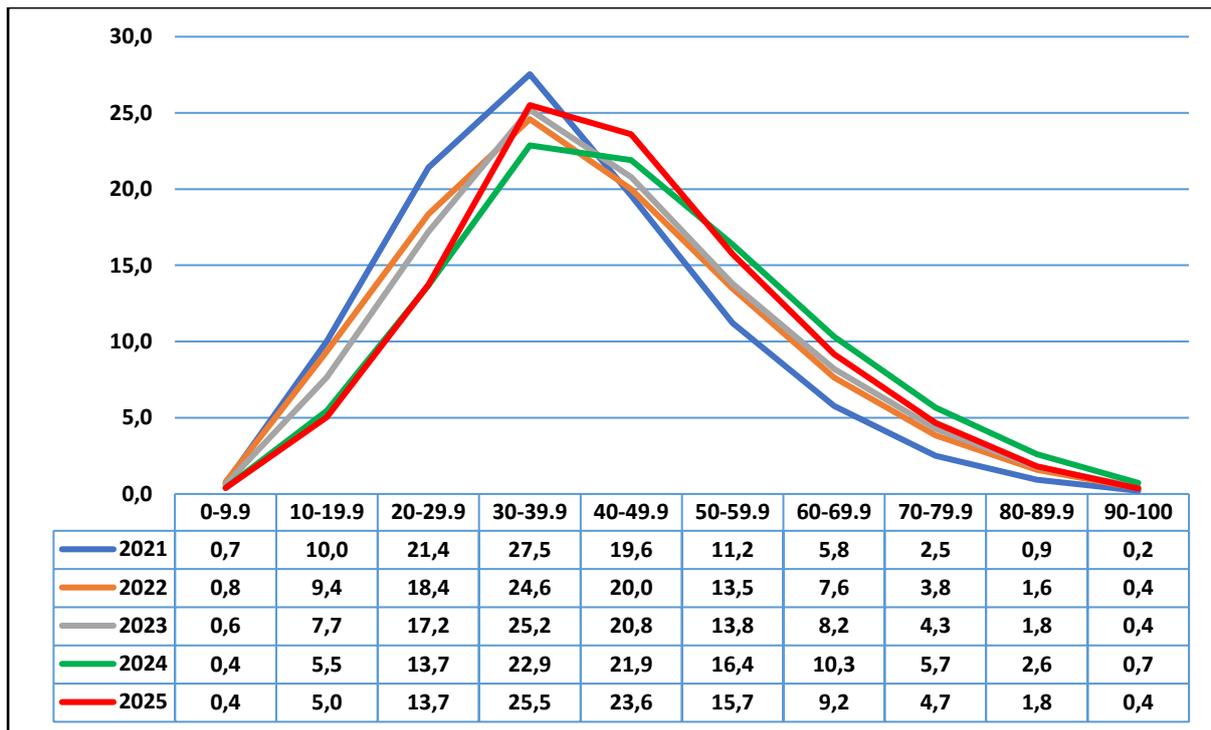
Despite the decline in the number of distinctions, the results achieved by this cohort are commendable as the overall pass increased marginally. Strategic intervention programmes at all levels (national, provincial, districts and schools) ensured that learners were adequately prepared.

**Table 5.1.1 Overall achievement rates in Economics**

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2021	139 191	94 479	67,9	56 145	40,3
2022	137 657	98 414	71,5	64 559	46,9
2023	123 661	92 140	74,5	60 957	49,3
2024	121 560	97 081	80,5	70 001	57,6
2025	122 191	98 770	80,8	67 600	55,3

**Graph 5.1.1 Overall achievement rates in Economics (percentage)**



**Graph 5.1.2 Performance distribution curves in Economics (percentage)**

## 5.2 OVERVIEW OF CANDIDATE PERFORMANCE: PAPERS 1 AND 2

### General comments

There has been a general improvement in the writing of essays in recent years. While there has been some improvement in the 8-mark higher-order questions, the candidates were still challenged by the additional part of the essay, the drawing of graphs, labelling of axes, and interpretation thereof. In addition, conceptual confusion, especially regarding related concepts such as *land restitution* and *land redistribution*, *explicit costs* and *implicit costs*, etc. seemed to be common in candidates' performance over the years.

The results will only improve in a meaningful and sustainable way if these areas are addressed. On a positive note, the performance in some 8-mark higher-order questions in Section B was better than the content-based 8-mark middle-order questions.

A thorough understanding of concepts in all topics will greatly enhance the candidates' performance in both papers, as they form the basis of understanding subquestions pitched at various cognitive levels. This has a direct impact on Section A, Section B (where concepts are tested as definitions and also applied in a particular context), and Section C (where concepts form part of the introduction for the essays.) An excellent knowledge of Economics terminology will result in correct interpretation and answering of indirect questions in Sections B and C. Teachers need to reinforce concepts through regular assessments in class.

It is imperative that the content of all topics be covered adequately and timeously to ensure sufficient opportunity for revision. When teachers fall behind in content coverage, topics under *Economic Pursuits* and/or *Contemporary Economic Issues* tend not to be taught thoroughly. Candidates who attempted questions on these topics performed poorly, in comparison to questions based on other topics. Teachers should structure assignments, projects and case studies in Grades 10 and 11 in a manner that will develop learners' writing skills, thus preparing them to cope with the Grade 12 content. This is also an area in which teachers must be

supported by subject advisors, especially where textbooks do not address the requirements of the *Examination Guidelines*.

In Grade 10 and Grade 11, learners' knowledge of topics/content should be extended wherever possible, so that a strong foundation is set to cope with the demands of the Grade 12 curriculum. Grade 10 topics, such as the *Circular Flow and Quantitative Elements, Budget, Government Intervention, Business Cycles* and Grade 11 topics, such as *Calculation of the GDP, Market Structures, Cost and Revenue Curves, Income Inequalities, Indicators, North/South Divide, Globalisation and Environmental Sustainability* have strong links to Grade 12 topics and should be emphasised and tested.

While there has been a general improvement in the drawing of graphs over the years, the technical aspects need to be reinforced. Teachers must ensure that learners have a thorough understanding of drawing and interpretation of graphs as this aspect is regularly tested in *Microeconomics*. These skills must be regularly reinforced in Grades 10 and 11. With regard to *Perfect Markets and Imperfect Markets*, teachers need to teach graphs to learners by drawing the cost and revenue curves step-by-step. Each step needs to be explained as it is done. After the teacher has drawn each step, learners should do the same in their workbooks. This should include the correct shape, positioning and labelling of cost and revenue curves. Emphasis must be placed on the average cost curve (i.e. *smile*) which must always be drawn before the marginal cost curve (i.e. *tick*). This will ensure that the MC always intersects the AC at its minimum point. It is extremely important that teachers recognise the integration of topics from Grade 10 to Grade 12. Graphs relating to cost and revenue curves must be dealt with thoroughly in Grade 11 as they form the foundation for the more complex graphs in Grade 12. Too many candidates still do not have the skill to explain a graph, although they are able to draw it correctly.

Simple calculations and formulae need to be reinforced and assessed regularly as these skills are tested frequently in the NSC examination papers, e.g. *national account aggregates, moving averages, tax burden, the multiplier, BoP, exchange rates, profit and loss, production cost, CBA, percentage changes* and the *inflation rate*.

### Specific findings

- (a) A good understanding of tables, extracts, news articles, figures and graphs enabled many candidates to perform well.
- (b) Although candidates were able to complete each paper within the allocated time, it seemed as though they had limited time to review and check their work as a few subquestions in Sections A and B were omitted.
- (c) The main reasons for underperformance were the following:
  - **Skills:** Poor language skills made it difficult for candidates to understand the requirements of questions and to express themselves clearly, especially in paragraph-type questions which formed a large part of the question paper. Most candidates were unable to solve problems, give their own opinions or evaluate data connected to their study material. They also lacked basic knowledge of the general economic issues of the day.
  - **Content coverage:** It is evident from the poor performance of many candidates that their teachers had not covered some of the topics. Basic Economics concepts/terminology seemed to be lacking and there was also a lack of knowledge on current economic issues, as noted in the following subquestions:
    - Paper 1 Q4.2.5 How can the privatisation of parastatals positively impact the government?
    - Paper 2 Q3.2.5 How can natural disasters negatively impact the tourism industry?

- **Exposure to different types of questions:** Many candidates were unable to answer questions with different instruction verbs and lacked the ability to unlock their knowledge in different ways.
  - Paper 1: In response to Q3.5, 'Analyse the fiscal policy measures that can be used to dampen the economy', many candidates just listed facts instead of clearly explaining how these measures can dampen (slow down) the economy. To 'analyse' involves breaking something into smaller parts, understanding how these parts interact or connect and drawing conclusions or making judgments. It is a critical thinking process aimed at gaining deeper insights or solving problems.
  - Paper 2: In response to Q6, (the additional part), 'How can South Africa's trading partners, such as the USA and China, influence the domestic inflation rate?', a number of candidates focused on the USA and China and wrote anything related to them. They were unable to link trading with domestic inflation, which suggested gaps in conceptual understanding and application skills.
  - Skilled candidates were able to write better essays and paragraphs and offer their opinions with confidence. Such candidates were able to focus on the information that was relevant to responding to each question.
- **Problem-solving skills:** Candidates lacked the ability to apply their knowledge of how to solve everyday problems experienced in their own communities to the answering of some questions, e.g.:
  - Paper 1 Q3.2.5 How can access to clean water boost a country's economic performance?
  - Paper 2 Q4.2.5 How can the government use redress methods to redistribute wealth in South Africa?
- **Language ability:** Proficiency in the language of assessment is still a drawback for many second-language candidates; however, some centres in deep rural areas produced good results compared to others in similar circumstances.

### General suggestions for improvement

Teachers are advised to build the following practices into their work plan for the year:

- (a) **Use of past NSC and CAPS-aligned exam papers:** In preparation for the 2026 NSC examinations, all learners should have access to and use NSC papers, which should include the final examination papers (2017–2025) and the supplementary examination papers (2018–2026) for clear guidance on style, format and different questioning techniques. Furthermore, teachers should refer to the *2021 Examination Guidelines* as a guide when it comes to the scope and depth of content and on how to assess learners' understanding of the specific content matter. Previous question papers and marking guidelines should be used as revision tools, but not as teaching tools, as this will encourage spotting of questions for the exams. It is critical that teaching focuses on the interpretation of questions and a clear understanding of the different instructional verbs.
- (b) **Basic concepts:** Teachers should prioritise the teaching of terminology at the start of each chapter and implement regular terminology tests to consolidate concept knowledge. More time should be spent on improving the reading skills of all learners – especially those learners whose mother tongue is not the language of teaching and learning. A *glossary* of all concepts should be compiled for each topic. Quiz bowls, crosswords or team challenges are recommended as useful tools to assess knowledge of economic concepts. In addition, tools such as *THEA* can assist by generating flash cards, games and summaries from *Word* documents, while *Mindjoy* offers AI-based tutoring support. Afrikaans-speaking candidates can also benefit from using *Notebook LM*.

- (c) **Requirements of questions:** Too many learners misinterpret questions. By attempting past papers and unpacking questions in terms of the requirements, learners will be guided to write what is relevant to questions, especially for the 2-mark, 4-mark and 8-mark questions. Key words in the question should be underlined so that learners practise to respond to all the requirements of the question.

If, for example, a question requires the drawing, interpretation or analysis of a well-labelled graph or table, it must be done effectively to earn the relevant marks, e.g. Paper 1, Q2.2.5: 'Use the information in the above graph to calculate the marginal cost if 10 units are produced. Show all calculations.' In Paper 2, Q4.4: 'With the aid of a correctly labelled graph, explain economic loss in a perfectly competitive market.'

Teachers should ensure that their learners understand the phrasing of questions, e.g. the *what*, *why* and *how* type of higher-order questions. However, the misconception that a question that begins with 'how' is a higher-order question, must be clarified. The following example illustrates this point:

Paper 2 – Q4.1.2: 'How can soil erosion impact agricultural production?' (2)

This is a middle-order cognitive level question, and it is of moderate difficulty. Learners should be guided by the mark allocation in terms of the depth of the answer required.

Regarding higher-order questions, (especially Q2.5, Q3.5, Q4.5 and the additional part of the essay questions), candidates need to read the question carefully and highlight the key points required. Furthermore, it is important to note that answers to these questions are not necessarily found in textbooks but will require application of content studied within a particular context. Reading the questions more than once will ensure more accurate responses. Questions should constantly be checked to ensure that logical responses are provided.

Learners should practise answering higher-order questions as these place advanced cognitive demands on learners and encourage them to think beyond literal answers to questions. These questions promote critical thinking skills when learners are expected to apply, analyse, synthesise, solve problems and evaluate information instead of simply recalling facts. Higher-order questions require learners to make inferences, draw relevant and insightful conclusions, and use their knowledge in new situations. These questions also require learners to apply their thinking to other situations and to incorporate their background knowledge. Issues from the real world can be used to either support or refute a point of view. Learners should be encouraged to take the time to thoroughly understand a question before attempting to answer it.

Teachers should realise that there are more interesting and creative ways to teach than by simply promoting rote learning. Techniques should include teaching for understanding, decision-making, problem-solving, connecting a part to a whole, detail-to-concept, and concept-to-concept. Inference, prediction, analysis for bias and learning for transfer are more examples of what teachers could teach. Each of these techniques and processes requires some form of critical thinking. Opportunities for learners to develop critical thinking processes will not be found in classrooms dominated by the regurgitation of factual content. They are found in classrooms where active learning is an essential component.

- (d) **Comments and explanations:** Teachers should equip learners with the relevant skills needed to express themselves clearly when comments or explanations are required. Learners need guidance on how to express opinions that are relevant to the context of especially higher-order questions, e.g.:

- Paper 1: Q2.5: 'How can the depreciation of the rand impact the South African economy?'
- Paper 2: Q3.5: 'Analyse the various international measures in reducing climate change.'

(e) **The importance of formative testing:** Baseline assessment is crucial before introducing new topics as it helps to identify and mitigate any content gaps that learners may have carried over from previous grades. Teachers should improve the confidence of learners by using short, informal formative tests and tasks. These tasks should be used to ascertain whether learners are able to apply their knowledge, placing emphasis on their own opinions and understandings. The practice of drawing graphs on a regular basis is essential to understand the content, especially in *Microeconomics*. This will encourage learners to take ownership of their learning process.

(f) **The structure of the paper:**

- **SECTIONS A AND B:** The demands of these sections should be explained to learners to enable them to organise their answers properly. Leaving lines between subsections, using the correct numbering system, and not omitting question numbers are examples of techniques that make assessment more effective.

Section A, Q1.1, requires candidates to write the letter of their choice (A, B, C or D) next to question numbers. However, if they decide to write the statements/options, this will have to be the complete statement, as per the question paper. It is suggested that learners first attempt to determine the correct answer to multiple-choice questions before analysing the given options. Learners must be made aware that no marks will be awarded when they provide more than one answer to a short question. It is important that they cancel an incorrect letter in Q1.1 and Q1.2 and write the correct one next to it, instead of writing over the incorrect letter chosen. In Q1.3, teachers must stress the importance of reading the instruction, because acronyms and abbreviations will be marked incorrect as these are not accepted as per the instruction.

In Section B, there is a misconception that answers to 1-mark questions in the *Data Response* items must come directly from the data. A question may require an application of knowledge when the answer appears in the data, or it may be a simple question related to the data.

It must be noted that where responses are more than what the instruction requires, additional answers will not be marked.

- In Section B, only two of three questions and in Section C, only one of two questions must be answered.
- In Section A, where candidates give TWO responses, the first response will be marked.
- In Section B (2.1.1, 3.1.1, and 4.1.1), only the first TWO responses will be marked.
- In Section B data-response questions that require a specific number of responses (e.g. 2.2.1 and 2.2.2), only the first response will be marked.
- **SECTION C (Essay):** The importance of the layout of the essay should be emphasised, i.e. introduction, body (main and additional part) and conclusion. There should be a clear distinction between the various sections with line spacing between them. Using subheadings is crucial as these earn marks and provide structure to the response. Learners should structure the essay according to the outline provided in the question paper. Learners must be made aware that no marks will be earned if any part of the introduction or body is repeated in the

conclusion. Instead, the conclusion should include the learner's own opinion/ an alternative viewpoint/any fact to support the body, or a summary of the discussion. Teachers must encourage learners to pay attention to the essay structure guideline given in the question paper as this will enhance the layout and quality of their essay writing.

Learners should be given the opportunity to practise the answering of essay questions at the end of a topic or chapter, either in the form of a test or as homework. If given as homework, the essay can be assessed in terms of the following important aspects (detailed assessment is not necessary):

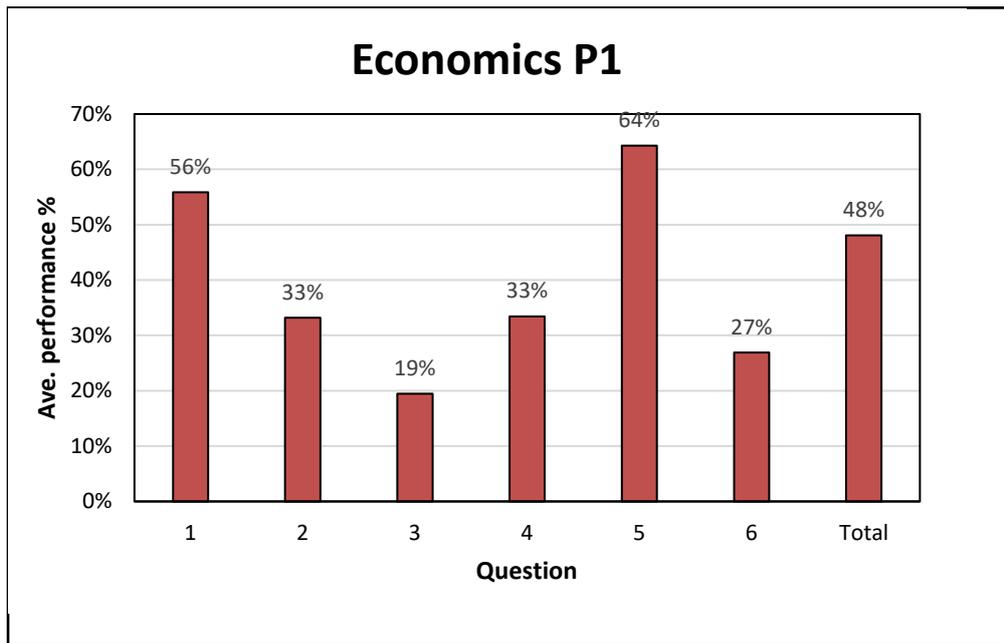
- Relevant introduction
  - Subheadings in the main part
  - The appropriateness of the additional part
  - Relevant conclusion
- Most resources are outdated and have not been revised recently, although there have been amendments to the *Examination Guidelines*. Teachers must be encouraged to identify content gaps in their sources when interrogating the *2021 Examination Guidelines* and to network with other schools, the cluster or the subject advisor to obtain the relevant content to supplement their resources.
  - Topics earmarked as possible essays in the *2021 Examination Guidelines* should be used to prepare thoroughly for the examination. When candidates spot questions, they are not properly prepared for the examinations and this could lead to poor performance. In both Paper 1 and Paper 2, the content of various essay topics was covered in lower-order, middle-order and higher-order questions.
    - Paper 1 reflected a total of 70 marks of these questions (see Q1.1.3, Q1.1.6, Q1.2.2, Q1.2.6, Q1.2.8, Q1.3.3, Q1.3.4, Q1.3.5, Q1.3.6, Q2.1.1, Q2.3, Q2.4, Q3.1.2, Q3.2.2, Q3.2.4, Q3.2.3, Q3.2.5, Q3.4, Q3.5, Q4.1.1, Q4.1.2, Q4.2.3, Q4.3.5, Q4.5.)
    - Paper 2 reflected 61 marks of these questions (see Q1.1.7, Q1.1.8, Q1.2.1, Q1.2.2, Q1.2.5, Q1.2.7, Q1.3.5, Q1.3.6, Q2.1.1, Q2.3.1, Q2.3.5, Q2.4, Q3.1.1, Q3.3.2, Q3.3.3, Q3.3.4, Q3.4, Q3.5, Q4.2.5, Q4.3.1, Q4.3.4, Q4.3.5, Q4.4.)

### 5.3 DIAGNOSTIC QUESTION ANALYSIS OF PAPER 1

The performance in Section A decreased slightly when compared to that of 2024. There was a decrease in performance in Q1.1 and an increase in Q1.2 and Q1.3. In Section B, candidates performed worse in Q2, Q3 and Q4. In Section C, the candidates performed better in Q5 and worse in Q6.

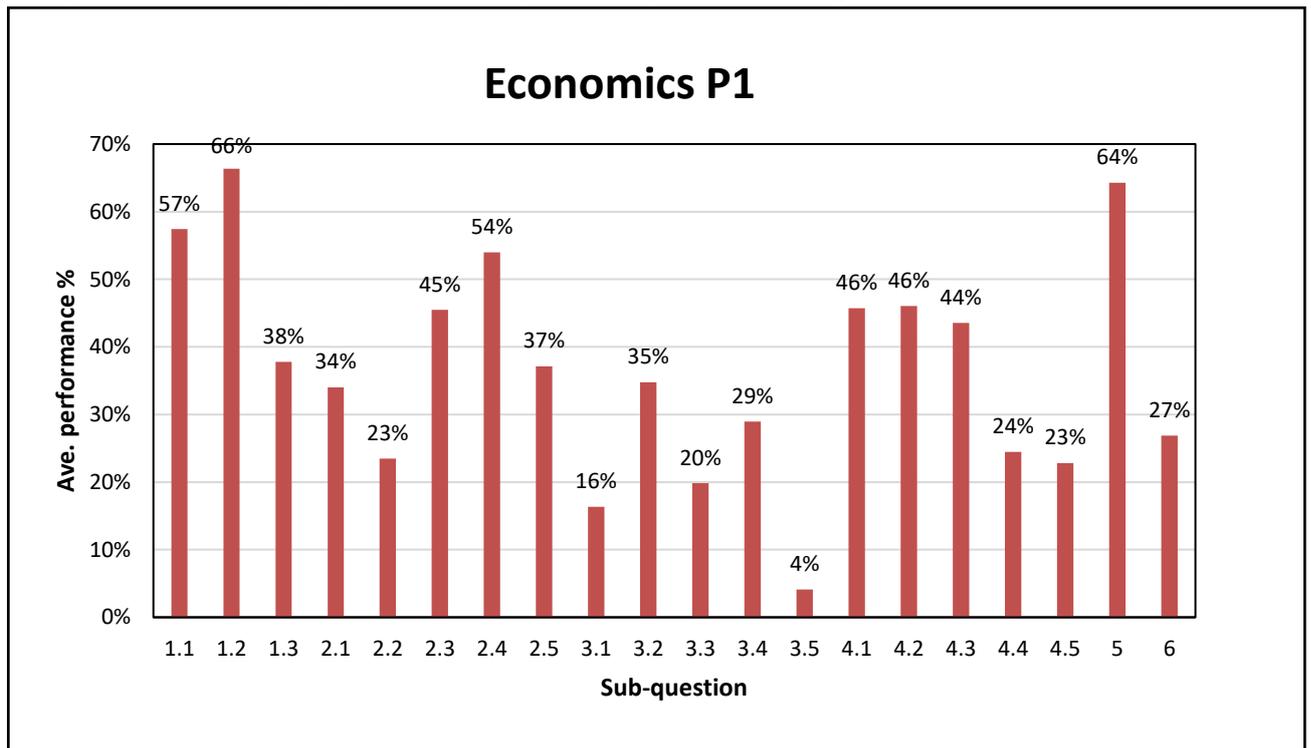
The following graph is based on data from a random sample of candidates' scripts. While this graph may not reflect national averages accurately, it is useful for assessing the relative degrees of challenge of each question as experienced by candidates.

**Graph 5.3.1 Average performance per question in Paper 1**



Q	Topics
1	Objective questions
2	Macroeconomics
3	Economic pursuits
4	Macro and pursuits
5	Macroeconomics
6	Economic pursuits

**Graph 5.3.2 Average performance per sub-question in Paper 1**



Sub-Q	Topic	Sub-Q	Topic
1.1	Multiple choice	3.3	Trade agreements
1.2	Matching	3.4	Economic Growth & development policies
1.3	Concepts	3.5	Economic indicators
2.1	Forecasting of business cycles & Public sector	4.1	International trade & Economic development
2.2	Balance of Payments – Financial Account	4.2	Public sector
2.3	Business cycles – Phillips curve	4.3	Economic Growth & development policies
2.4	Public sector – Macroeconomic objectives	4.4	Free trade
2.5	Foreign exchange markets– appreciation of the rand	4.5	New economic paradigm
3.1	Economic and Social indicators & Export promotion	5	Circular flow
3.2	Social indicators	6	Regional development

## 5.4 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 1

### QUESTION 1: MACROECONOMICS AND ECONOMIC PURSUITS

Overall, Q1 was relatively well answered, with the performance in Q1.1 being acceptable; Q1.2 having good performance; and Q1.3 being poorly answered. The performance of candidates ranged from excellent to poor. Some candidates attained full marks, while others did not attempt to answer some of the questions, despite Q1 being compulsory.

#### Common errors and misconceptions

- In Q1.1 a lack of content knowledge, especially in *Economic Pursuits*, led to many candidates being unable to choose the correct alternative. This is evidence of a lack of knowledge of the concepts. Poor performance was especially registered in Q1.1.1, Q1.1.2 and Q1.1.6.
- Most candidates performed well in Q1.2 and there were candidates who managed to obtain full marks for this question. The implication is that candidates perform better if they are provided with a few concepts from which to choose. However, most candidates found questions based on the emerging markets and the industrial hubs in the matching items questions, to be challenging.
- In Q1.3 most candidates performed poorly compared to Q1.1 and Q1.2. The lack of understanding of economic terminology and concepts led to poor performance in this question. In Q1.3.1, candidates gave 'depression' instead of 'recession' as the term for a decline in real gross domestic product for at least two consecutive quarters. A number of candidates confused *protectionism* with *import substitution* in Q1.3.4 and *land redistribution* with *land restitution* in Q1.3.5. In 1.3.6 *population growth* was given as an answer instead of *demographic indicators*.

#### Suggestions for improvement

- Teachers should focus on helping learners to develop a deeper understanding of macroeconomic concepts and *Economic Pursuits* concepts, rather than just memorising key terms. Short formative tests on basic concepts are recommended to ensure that learners become familiar with economics terms and concepts. Learners should be exposed to 'English across the curriculum' activities. Assessment of short questions should cover a class test, or any type of assessment such as a quiz or a word puzzle. This would assist learners to memorise concepts. Teachers could also randomly ask questions during lessons as this would ensure that learners are engaged and participate in the lesson.

Teachers should make use of previous question papers to intensify assessment of economic concepts.

- (b) Commence each lesson by testing concepts that were taught in the previous lesson. Continuous and constant revision of concepts and terminology is strongly advised. Learners should attempt to answer all items in Q1.1 and Q1.2 where the options are provided. Learners should also concentrate on more detailed preparation in respect of concepts and terminology to ensure that they attain higher marks for Q1.3.
- (c) Learners should be encouraged to create their own glossary for each chapter. They may keep a separate book/document containing all the terms that they have to study. Use informal concept tests to reinforce these concepts. Make use of flashcards, '30-seconds game' for Economics, etc.
- (d) Subject advisors should monitor the teaching of Economics concepts by checking activities in learners' books during their school visits.

## QUESTION 2: MACROECONOMICS

### Common errors and misconceptions

- (a) Although many candidates gave the correct responses in Q2.1.1, there were still a few who cited *leading* and *lagging* indicators as the answer.
- (b) In Q2.1.2, candidates did not explain the concept in an Economics context; as a result, they referred to *free riders* as a group of people who needed to be chased out of South Africa.
- (c) Most candidates, in Q2.2.2, could not name the subaccount of the Balance of Payments that recorded transactions relating to debt forgiveness. They mainly gave *current account* as their response instead of *Capital Transfer Account*.
- (d) Q2.2.3 was poorly answered by most candidates. They described *direct investment* as savings in a business account, which showed that they did not understand the concept.
- (e) A number of candidates' responses to Q2.2.4 lacked completeness as they focused on only one of the purposes. They either wrote about omissions or errors, which led to partial marks being obtained.
- (f) In Q2.2.5 responses were not sufficient to earn 4 marks. Some candidates only gave the final answer despite the question requiring them to first calculate the *reserve assets* amount and then ascertain if it increased or decreased.
- (g) Many candidates could not identify *natural rate of unemployment* as the concept that relates to the level of unemployment where the inflation rate is zero in Q2.3.2. A number of them did not attempt the question which indicated that they were not familiar with the concept.
- (h) In Q2.3.3 candidates had difficulty to explain the concept. Some even explained the business cycle. They seemed to know the stages of a business cycle, but could not show how the new paradigm related to managing those stages. Candidates could not connect the concept to real-world examples (e.g. government policies during economic downturns).

- (i) Candidates confused *market efficiency* with *economic growth* and *business cycles* in Q2.3.5.
- (j) In Q2.4, most candidates did not write in full sentences and inadequately responded to the question, e.g. 'Full employment is an important objective of the state'. They failed to explain why it was important.
- (k) In Q2.5, inadequate information was given by the candidates. They did not understand the meaning of *appreciation*, resulting in their inability to explain the impact of rand appreciation on the South African economy.

### **Suggestions for improvement**

- (a) Teachers need to use the *2021 Examination Guidelines* when preparing lessons to cover all aspects required for a topic. Ensure that learners are adequately exposed to middle- and higher-order questions as they must explain questions, such as 'How can the government exclude free riders from the consumption of public goods?'
- (b) Teachers should expose learners to standardised informal assessments that drill them to respond to questions of a higher cognitive demand, e.g. 'Why is it necessary for the government to impose taxes on demerit goods?'
- (c) A variety of calculations should be practised during contact time. Teachers should use the *SARB's Quarterly Bulletin* when teaching to indicate that *an increase in reserve assets is indicated by a negative sign, and a decrease is indicated by a positive sign*. Learners should be exposed to different calculations in the Balance of Payments. Team-teaching, outsourcing and workshops should be encouraged.
- (d) Learners need to be guided on how to interpret and respond to the cognitive demands of a question, especially higher-order questions.
- (e) Subject advisors need to support teachers by developing content-based documents that address challenging topics. Workshops based on content knowledge should be organised for newly appointed teachers and for those with content-knowledge gaps.
- (f) The use of print media and current economic issues should be linked to content to develop a better understanding. Teachers should demonstrate to learners how the *appreciation* and *depreciation* of the rand can positively and negatively influence the South African economy. The use of the internet for extended knowledge and understanding of the subject needs to be encouraged.

### **QUESTION 3: ECONOMIC PURSUITS**

#### **Common errors and misconceptions**

- (a) In Q3.1.1 candidates were unable to fully name the international organisations that require members to standardise economic and social indicators.
- (b) A fair percentage of candidates could not adequately describe the term *sanitation* in Q3.2.3. Most of them referred to cleanliness and hygiene or linked it to sanitisation during COVID-19, e.g. 'cleaning an area'. This term is not thoroughly explained in the approved textbooks, so learners had to rely on their general knowledge, which was insufficient to meet the requirements of the question.

- (c) In Q3.2.4 candidates focused on the country's production capacity rather than the impact on the labour force. Most candidates simply explained 'production' without responding to the question.
- (d) Most candidates' responses to Q3.2.5 were more focused on explaining clean water and hygiene without linking clean water to economics performance. A fair percentage of candidates mentioned only the health of workers and were unable to link clean water to improved economic performance. Some candidates incorrectly discussed the production and export of clean water, which was not relevant.
- (e) Q3.3.2 was poorly answered as many candidates failed to name the international organisation that facilitates free trade. Most candidates did not respond to the question or gave 'customs' as a response.
- (f) Many candidates did not do well in Q3.3.3. A fair percentage of candidates focused on describing *free trade* in general rather than addressing the removal of trade restrictions. Some candidates did not attempt to answer the question.
- (g) In Q3.3.4 candidates were largely unfamiliar with the African Growth and Opportunity Act (AGOA). Most of the candidates earned partial marks, as they did not fully explain the benefits of AGOA for South Africa. Instead, they limited their responses to job creation.
- (h) A fair percentage of candidates' responses to Q3.3.5 did not address the question. They discussed *dumping* as the removal of hazardous *waste*. Insufficient facts were given to warrant full marks.
- (i) In Q3.4 candidates did not use the allocated marks as a guide regarding the facts that they were supposed to provide. A substantial percentage of candidates discussed *Broad-Based Black Economic Empowerment (BBBEE)* as employment creation. Some candidates referred to the *Employment Equity Act* in terms of equal rights rather than the empowerment of previously disadvantaged groups. While many mentioned the development of skills, few could provide additional relevant details for the *National Skills Development Strategy (NSDS)*. Judging from the responses, candidates displayed a lack of content knowledge, which could indicate that *Economic Pursuits* content was treated superficially during teaching and learning.
- (j) Question 3.5 was the most poorly answered question in the entire paper. Candidates did not understand the question and could not identify economic indicators. Those candidates who managed to identify the indicators, often failed to show how changes could show an improved performance in the economy. Many candidates only described indicators such as *leading, coincidence or lagging indicators*. Other candidates described specific economic indicators, such as the *consumer price index, employment and interest rate* without relating them to the performance of the economy.

### Suggestions for improvement

- (a) *Economic Pursuits* should be taught and assessed thoroughly. This will assist and instil confidence in learners when they respond to the question. Practical and real-life situations (current economic issues) should form part of teaching to make lessons more meaningful to learners. Learners should be taught the *trade protocols*, and which part of the world is referred to as SADC countries. Teachers should mediate content on *BBBEE* and *NSDS* thoroughly to learners. A clear distinction should be made between *growth and development policies*.

- (b) Learners should be guided on the interpretation of questions. Focusing on in-depth content knowledge by the subject teacher is important. This will assist learners to analyse, synthesise, make their own judgements and build confidence in responding to higher-order questions.
- (c) Additional learning materials should be provided to learners during the academic year. Teachers should always look for and update recent economic information to empower learners with recent knowledge. Learners should be exposed to all economic and social indicators and the importance of measuring various economic and social indicators. Learners should be assigned to research and present on economic and social indicators. Provide examples of *changes in economic indicators* and ask learners to *analyse how the changes in economic indicators show improvement or decline in economic performance*.
- (d) More case-study questions should be discussed in class and given as homework activities. Data provided in data-response questions should be analysed thoroughly before learners attempt to answer any questions set. Debates and presentations of certain topics should be conducted regularly. Teachers must endeavour to include the *why* and *how* types of questions to enable learners to think beyond typical textbook knowledge. Teachers should give learners more class activities based on economic indicators, including recent real-life situations. Classroom activities and tests based on import-substitution benefits for the economy should be administered by teachers to ensure that learners are empowered to respond to this middle-order question with confidence.
- (e) Subject advisors need to support teachers by developing content-based documents that address challenging topics. Data-response activities that can be used as formative assessment in the classroom should be collated.

#### QUESTION 4: MACROECONOMICS AND ECONOMIC PURSUITS

##### Common errors and misconceptions

- (a) Although Question 4.1.1 specifically asked for *demand reasons* for international trade, a substantial percentage of candidates provided *supply reasons*, thus demonstrating an inability to differentiate between demand and supply. It is important to note that some demand reasons, such as *climate*, can also be discussed in terms of supply, e.g. '... importing goods due to an unsuitable local climate to grow certain products.'
- (b) In Q4.2.2, candidates listed examples of *community goods* without classifying them correctly. In general, candidates struggled to differentiate among *collective goods*, *merit goods* and *community goods*.
- (c) A fair percentage of candidates explained the effect of an increase in VAT on *consumers* in Q4.2.4, rather than on *businesses* and therefore did not earn marks. Responses were generally poor. Some candidates incorrectly stated that price increases would increase profits, while others referred to value-added tax (VAT) evasion, which was incorrect.
- (d) In Q4.2.5 a substantial percentage of candidates discussed the effects on the economy or businesses rather than the impact on the government, resulting in marks being lost. Some candidates explained the parastatals without outlining the benefits of selling government entities to the state.
- (e) It was disconcerting that in Q4.3.3, candidates could not describe the basic economic term *labour-intensive*. Most candidates referred to the intensity of labour rather than the

labour-capital relationship. Other candidates discussed *employment* or *unemployment*. This concept is taught in Grade 10, indicating that candidates struggled with proper interpretation of language in an Economics context.

- (f) In Q4.3.4 most candidates discussed the poor conditions of the roads without explaining the impact of poor infrastructure on economic growth.
- (g) In Q4.4 a fair percentage of candidates discussed the reasons for international trade. Many candidates merely explained the meaning of *free trade*. *Specialisation* was often explained in terms of worker skills without reference to production.
- (h) Candidates could not fully answer Q4.5 as they only had information on government expenditure and tax, which was not sufficient for them to earn 8 marks. A substantial percentage of candidates did not understand the term *dampen*. Many explained *expansionary policy* instead of *contractionary policy*, or in some cases, they discussed both.

### Suggestions for improvement

- (a) Content mapping must be done at school to identify the concepts that span Grades 10–12 so that these concepts can be covered in detail. Teachers should discuss and clarify the difference between *demand reasons* and *supply reasons for international trade* during lesson presentations. Learners must be taught to explain terminology in precise economics terms rather than in general terms, e.g. concepts such as *specialisation* or *labour-intensive*. Currently, learners often rely on general knowledge to explain these terms.
- (b) Teachers should use a variety of resource materials to prepare learners adequately for the examination. Current economic issues should be used as examples to illustrate the subject in context. Economics in the classroom should be linked to economics in real life and this is done by exposing learners to actual data, graphs and statistics. Print media and video clips can be used to clarify content. Teachers should not only explain activities taking place when the economy is in recession, but also the impact they have on all phases of the economy and use current data.
- (c) Teachers should ensure that learners understand what is expected of them when instructional verbs such as *argue*, *analyse*, *evaluate* or *differentiate* are used in a question. Teachers should implement the ATP, including *Economic Pursuits* topics, thoroughly and drill learners using previous question papers.
- (d) Application of knowledge should form part of daily teaching. Learners should be taught to make their own judgements based on content. Different forms of discussion, from debates to case studies, may be used during lessons to encourage learners to support arguments and make opinion-based decisions. Teachers should explain the difference between *injections* and *leakages* to simplify content for the learners and expose them to higher-order questions. They should also explain the impact of leakages and injections on the economy.
- (e) Learners should be guided on the process of selecting questions from both Section B and Section C as part of exam-answering techniques. Often, all the questions in Section B are answered; this is a clear indication of poor planning and a waste of valuable time. Instructions need to be explained and reinforced to learners during their revision sessions so that they are clear about the requirements.

## QUESTION 5: MACROECONOMICS

### Common errors and misconceptions

- (a) In the introduction, most candidates obtained 2 marks.
- (b) In the main part, most candidates who attempted this question obtained more than 50% of the 26 marks. The candidates performed better as they were able to discuss the markets within the four-sector circular-flow model. A few candidates experienced challenges as they mixed up information, especially when explaining *money* and *capital* markets.
- (c) The additional part of the essay was of a higher cognitive demand and was allocated 10 marks. Many candidates lost marks due to listing when they had to evaluate the contribution of the business sector to the development of the South African economy.
- (d) Most candidates did not obtain any marks for the conclusion because they either repeated information contained in their response or wrote information that was completely irrelevant.

### Suggestions for improvement

- (a) It is important that subject advisors supplement content on this topic through teacher development workshops to address gaps in teachers' content knowledge. Teachers should use the examination guidelines to identify all macroeconomics essays. They should also provide learners with opportunities to write introductions as an informal activity in order to build the capacity of learners, so that they can understand *various markets in the open-economy circular-flow model*.
- (b) Teachers must focus on guiding learners in the correct writing style for the introduction, body, additional part and the conclusion when dealing with essay questions.
- (c) Teachers should expose learners to past question papers to create a wider awareness of different types of questions. Learners should be exposed to questions on all levels of difficulty during class activities, tests and internal examinations.

## QUESTION 6: ECONOMIC PURSUITS

### Common errors and misconceptions

- (a) A small percentage of candidates attempted this question. They could not earn any marks for the introduction as they either did not provide one or gave an explanation not relevant to the topic. Some explained the description of a business cycle.
- (b) In the main part of the essay, they did not provide sufficient information to obtain 26 marks. Most candidates answered by giving incorrect information, such as features underpinning forecasting. This suggests the prediction of essays by learners as it had no relevance to the question.
- (c) In the additional part, most candidates seemed not to understand how the government used incentives to promote industrial development.
- (d) The conclusion of most candidates were summaries with repeated facts from the body, while others left this section of the question unattended.

### Suggestions for improvement

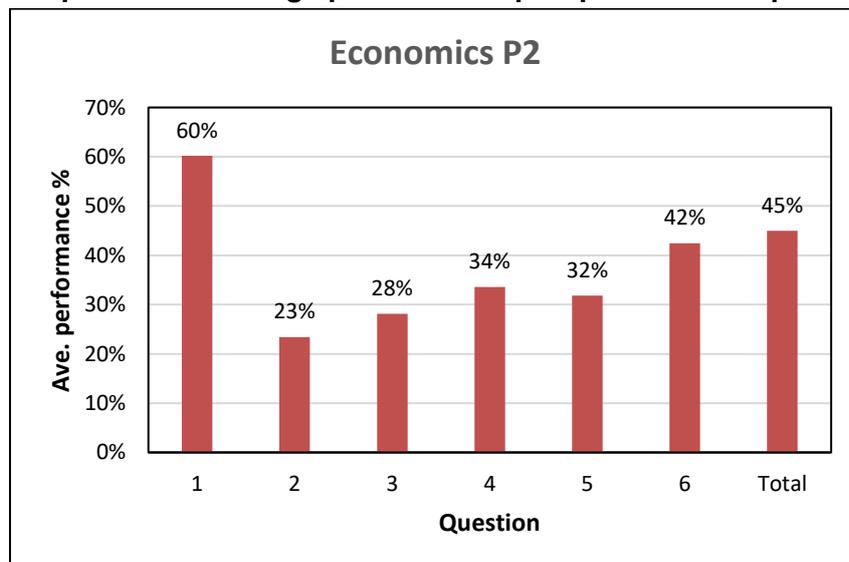
- Teaching of these topics should be done holistically. Learners should be able to discuss each fact in detail. This will ensure that they do not omit any crucial aspect of the answer. More time should be used to teach areas that prove challenging to learners.
- When teaching the essays, teachers should highlight the importance of mentioning subheadings as marks can be awarded for such, including examples (1 mark per subheading or example).
- The use of the *2021 Examination Guidelines* is encouraged as it serves as a fundamental document for teachers to thoroughly prepare learners for essays that might appear in the question paper. Teachers should use the *Examination Guidelines* to identify all *Economic Pursuits* essays and give learners activities to write introductions as an informal activity to build the capacity of learners to understand the content.
- Different teaching methods should be used at school level such as debate and presentations of economic statement competitions. These activities will train learners to research and present facts with arguments using relevant real-life situations.
- Subject advisors need to monitor the inclusion of all the cognitive levels in school-based assessment tasks. Workshops on cognitive levels and levels of difficulty should form part of content workshops conducted during the year.

### 5.5 DIAGNOSTIC QUESTION ANALYSIS OF PAPER 2

The performance in Section A showed a decline when compared to 2024. In Section B, candidates performed worse in Q2 and Q3, while the performance in Q4 was similar to the performance of the 2024 cohort. In Section C, there was a substantial decline in Q5, while Q6 showed comparable performance. The candidates' performance in the higher-order questions and *Microeconomics* in general has shown a decline.

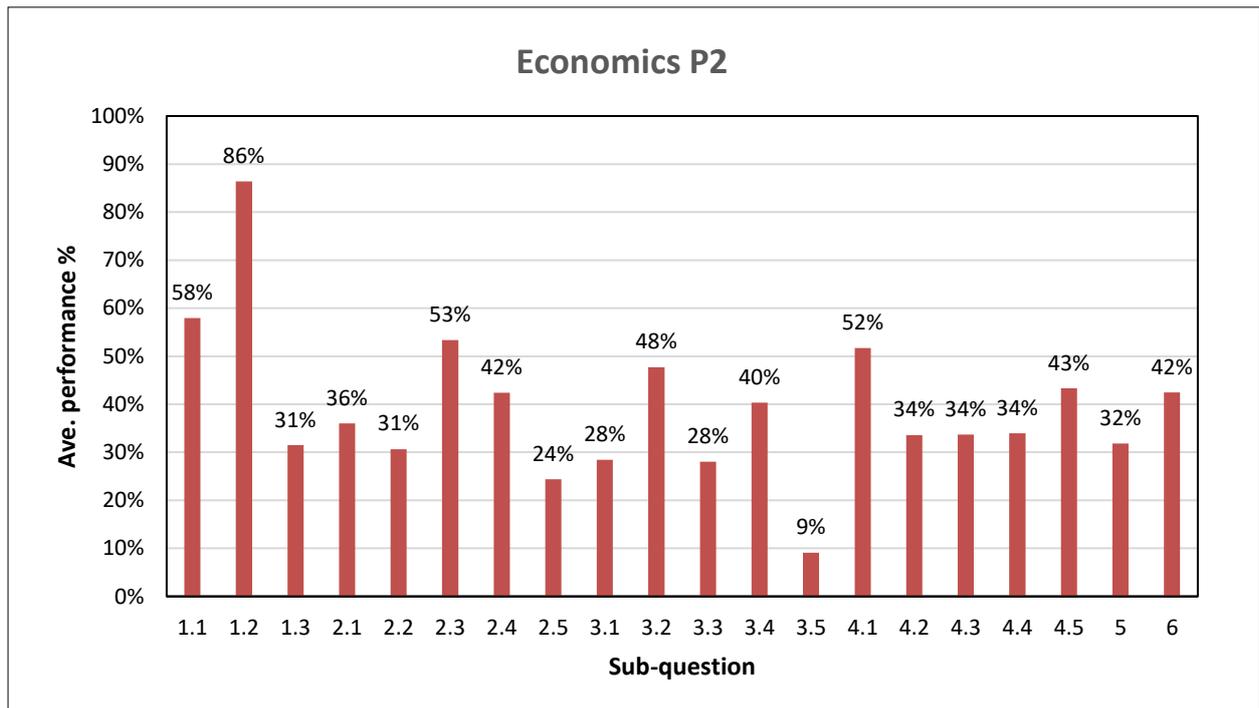
The following graph is based on data from a random sample of candidates' scripts. While this graph might not accurately reflect national averages, it is useful for assessing the relative degrees of challenge of each question as experienced by candidates.

**Graph 5.5.1 Average performance per question in Paper 2**



Q	Topic/s
1	Objective questions
2	Microeconomics
3	Contemporary economic issues
4	Microeconomics and contemporary economic issues
5	Microeconomics
6	Contemporary economic issues

**Graph 5.5.2 Average performance per subquestion in Paper 2**



Sub-Q	Topic	Sub-Q	Topic
1.1	Multiple choice	3.3	Environmental sustainability protocols
1.2	Matching	3.4	Effects of tourism
1.3	Concepts	3.5	International measures – climate change
2.1	Oligopoly/shutdown point	4.1	Private costs/Environmental problems
2.2	Perfect market- Cost and Revenue Schedule	4.2	Imperfect distribution of income and wealth
2.3	Market failure – taxes on production	4.3	Environmental problems
2.4	Causes of market failure	4.4	Economics loss - graph & explanation
2.5	Normal profit in a perfect market	4.5	Strategies to promote tourism
3.1	Command and control systems/tourism	5	Monopoly/Anti-monopolistic policy
3.2	Tourism	6	Combating inflation/impact on inflation

## 5.6 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 2

### QUESTION 1: MICROECONOMICS AND CONTEMPORARY ECONOMIC ISSUES

The performance in this question has improved over the past few years, especially in Q1.1 and Q1.2. However, Q1.3 remained a challenge for many candidates, with some scoring zero. It was evident that candidates still found concepts to be challenging and they often confused related concepts. Overall, there was an increase in the average from 2024. The performance of candidates ranged from excellent to poor. Some candidates attained full marks, while a few did not even attempt to answer some of the questions.

### Common errors and misconceptions

- (a) Many candidates included options A and B for Q1.1.3, which showed their confusion of the concepts *average cost (AC)*, *average variable cost (AVC)*, and *average fixed cost (AFC)*. This confusion can be attributed to candidates not reading the stem thoroughly, as the word 'always' should have guided them to the correct option.
- (b) In Q1.2.2 poor performance could be attributed to a misunderstanding between a *price maker* and a *price taker*. Candidates selected the incorrect matching statement.
- (c) The term *market share* in Q1.3.2 appeared to be foreign to many candidates. Popular responses were *profit*, *profit maximisation*, *revenue* and *inflation target*.
- (d) In Q1.3.3 a lack of understanding of basic economic concepts was evident. Some candidates wrote the abbreviation instead of writing the concept of *cost-benefit analysis* in full. Other responses included *cost-based analysis* and *cost analysis*.
- (e) Many candidates in Q1.3.4 were not specific about the broad type of inflation. Instead of providing *cost-push inflation* as a response, *inflation* and *cost-pull inflation* were common responses.
- (f) In Q1.3.5, candidates' answers suggested a lack of a thorough understanding of *World Heritage Sites*. They wrote *heritage sites* instead of providing the response in full.
- (g) In Q1.3.6, a fair percentage of candidates confused *climate change* with *global warming*. Although the concepts are related, climate change is a result of global warming, and the two concepts are not synonyms.

### Suggestions for improvement

- (a) Definitions and concepts should be emphasised. The use of a glossary at the beginning of each topic should form the basis of the teaching and learning of Economics. Revision by means of short, regular formative tests on basic concepts is strongly recommended.
- (b) The concepts *AC*, *AVC* and *AFC* should be explained step-by-step by using simple calculations, clear diagrams and summary tables so that learners can easily see how each cost changes as production increases.
- (c) Emphasis on distinguishing between related concepts such as *demand-pull inflation* and *cost-push inflation*, *global warming* and *climate change*, *World Heritage Sites* and *heritage sites* is essential to eliminate confusion.
- (d) Learners should be advised to write the complete economic concept instead of abbreviations in Q1.3. Teachers must ensure that the instruction for this question is mediated to all learners.
- (e) Learners must be encouraged to read a question completely, as certain descriptors within the question give information (clues) to identify the correct concept.

## QUESTION 2: MICROECONOMICS

### Common errors and misconceptions

- (a) In Q2.1.1 many candidates failed to interpret the question fully as they gave examples of individual businesses instead of oligopoly markets. Incorrect answers included

Capitec, MTN and Engen. Some candidates also gave examples of businesses under monopolistic competition, such as KFC and Hungry Lion.

- (b) In Q2.1.2 a fair percentage of candidates were unable to explain when a firm will shut down as answers focused on the firm making either a loss or not making an economic profit. Explanations given omitted any reference to average variable cost, which was crucial in determining the shutdown point. Some answers included the equation:  $P/AR < AVC$ , without an explanation.
- (c) Answers to Q2.2.2 suggested that candidates still had difficulty with differentiating between related concepts. The concepts were closely related, as they both related to revenue per unit. *Marginal revenue* was provided as a response instead of *average revenue*.
- (d) In Q2.2.3 most candidates could not provide an adequate explanation for *implicit costs* and confused *implicit costs* with *explicit costs*. Implicit costs were referred to as the cost of production.
- (e) A large percentage of candidates in Q2.2.5 failed to provide the correct formula to calculate marginal cost. Incorrect formulae included:  $TR-TC$ ,  $TC/Q$ , and  $P \times Q$ .
- (f) In Q2.3.3 the concept of *Pareto efficiency* seemed complex to most of the candidates. They failed to show that Pareto efficiency is achieved when both allocative and productive efficiency are achieved. Most of the candidates' responses focused on the explanation of allocative efficiency.
- (g) Most candidates explained subsidies in general instead of producer subsidies, in Q2.3.5. They failed to show how producer subsidies affected the economy and instead gave a brief description of subsidies.
- (h) In Q2.4 a large percentage of candidates were able to explain what *immobility of factors of production* and *lack of information* were but failed to show how these factors might have led to a misallocation of resources.
- (i) While most candidates attempted Q2.5, a fair percentage of them drew graphs instead of answering the question. Their graphs included normal profit for a perfect market and economic profit for a monopoly. Some discussed entry and exit as a characteristic of a perfect market.

### **Suggestions for improvement**

- (a) Teachers should clearly explain the difference between an individual firm/business and the industry/market in relation to market structures, to learners. They should emphasise that a market/industry is a group of firms producing/selling similar products. Ithala Bank, TymeBank, Capitec, ABSA, Nedbank, FNB, Discovery, African Bank and Standard Bank individually are called banks, and collectively they are referred to as the banking industry.
- (b) Teachers are encouraged to use graphical representation of a perfectly competitive firm to identify the shutdown point and they must emphasise the key reference to AVC in determining the shutting down of business operations. This explanation must be extended to total revenue (TR) not being able to cover the firm's total variable costs (VC).

- (c) To avoid confusion, teachers must emphasise the difference between *average revenue* (revenue/income per unit) and *marginal revenue* (additional revenue/income earned for selling one additional unit). The relationship or differences between these costs and other types should be assessed through the completion of a cost table.
- (d) Teachers are encouraged to differentiate between *implicit* and *explicit* costs when they introduce the topic *Production Costs* to learners in Grade 11. They should emphasise that implicit costs include an opportunity cost. In addition, terminology related to *cost* and *revenue* must also be emphasised. The cost and revenue graphs are essential, as they form the foundation of Grade 12 content in *Microeconomics*. This work should be reinforced thoroughly in Grade 12.
- (e) Learners should be trained to answer enough middle-order paragraph questions in order for them to become accustomed to writing their explanation in terms of the question requirement. They must be discouraged from giving answers, without substantiation.
- (f) A graphical representation of the market and the individual firm will best explain the behaviour of competitors in the market, as firms follow the signal to leave or enter the market. It should be emphasised that *economic profit* attracts new entrants into the market in the short term. This lowers the market price and that has an eroding effect on the economic profit which leads to firms making a *normal profit* in the long run. The opposite would occur when the market experiences an *economic loss*. This must be explained as well.
- (g) Subject advisors, through teacher development, should develop more material on *market structures* and *market failures*. It is evident from candidates' responses that teachers need support in this section.

### QUESTION 3: CONTEMPORARY ECONOMIC ISSUES

#### Common errors and misconceptions

- (a) In Q3.1.1 many candidates were unable to name two approaches used in *command-and-control systems*. Some candidates confused the approaches with *recycle*, *re-use*, and *reduce*. Other responses included *preservation* and *conservation*. This showed that candidates were underprepared to respond on measures to ensure environmental sustainability.
- (b) In Q3.1.2 most candidates failed to explain why the tourism sector is regarded as labour-intensive. Instead, they listed facts only, such as 'It creates job opportunities' and 'It employs many different skills' without providing an explanation.
- (c) Candidates' responses in Q 3.2.4 indicated limited conceptual understanding of public-private partnerships, hence they could not explain how it develops tourist attraction sites. Most of the responses explained indigenous knowledge systems, while others copied sentences provided in the extract.
- (d) In Q3.3.1 performance was very poor, as answers related to international agreements, concerning environmental problems, which were not included in the cartoon.
- (e) Most candidates failed to explain *marketable permit* in an Economics context in Q3.3.3. Explanations were generic and could not be linked to environmental sustainability. Some explained marketable permit as a licence to market products.

- (f) In Q3.3.4 most candidates were able to explain the concept of *indigenous knowledge*; however, they could not explain the impact of its loss on the environment.
- (g) A number of candidates lost marks in Q3.3.5 due to listing points instead of writing in full sentences. Responses included: 'lack of knowledge', 'carelessness' and 'externalities'.
- (h) In Q3.4 a large percentage of candidates provided incomplete responses that did not fully address the effects of tourism on both the gross domestic product (GDP) and poverty. Typical answers included statements such as 'tourism contributes directly and indirectly to GDP' or 'tourist attractions are located in rural areas'. These responses failed to explain the effects as required by the question. Some candidates merely described GDP.
- (i) In response to Q3.5, many candidates discussed government measures to ensure environmental sustainability, instead of international measures to ensure a reduction in climate change.

### **Suggestions for improvement**

- (a) The teaching of contemporary economic issues is imperative and basic concepts need to be emphasised. In some instances, these topics may not be covered, possibly due to poor time management. Teachers should cover *Environmental Deterioration* thoroughly in Grade 11 as a large part of the content overlaps with the Grade 12 topic, *Environmental Sustainability*. Assessment should also be comprehensive enough to give learners a head start in Grade 12. This will allow for more time to teach other topics which are sometimes neglected.
- (b) Teachers should encourage learners to provide detailed responses to earn full marks. They should avoid the mere listing of facts.
- (c) Learners must be exposed to more data-response questions, i.e. 4-mark questions that require application skills. A thorough understanding of key concepts is necessary to interpret such subquestions. These questions should be discussed in class with the emphasis on the use of the relevant data to address the requirements of the question. Logical reasoning will enable learners to earn marks, especially if they can show an understanding of the question.
- (d) The importance of infusing current economic issues in lessons cannot be over-emphasised, especially where content can be linked to real-life issues. The effects, benefits and promotion of tourism can easily be linked to current developments in the tourism industry. Teachers are encouraged to use current statistics such as GDP and employment figures. Updates from the annual *Conference of Parties (COP)* meetings on climate change will enhance learners' appreciation of environmental sustainability.
- (e) In teaching Economics, a crucial element is to motivate learners to think laterally about the topic. Where possible, teachers must relate the different topics to real-world issues. This will help learners prepare for higher-order questions. Learners must gain practice in evaluating, assessing or critiquing issues/topics whenever possible. Teachers are encouraged to set their own higher-order questions, to extend the engagement and knowledge acquisition of the learners in their respective classes. They should realise that textbooks do not adequately provide all relevant and current responses to questions. Teachers are encouraged to use other relevant resources that will give more information to supplement textbook information.

- (f) Sufficient informal activities on higher-order questions are crucial in preparing learners for subsequent formal assessment tasks. These cognitive verbs must be unpacked with learners to help them improve and understand the requirements of a question.

#### QUESTION 4: MICROECONOMIC/CONTEMPORARY ECONOMIC ISSUES

##### Common errors and misconceptions

- (a) In Q4.1.1 many candidates could not give correct examples of private costs to build a school. Incorrect answers included 'nutrition, furniture, books.' Some candidates listed types of costs, such as *implicit*, *explicit*, *fixed* and *variable* costs instead of actual examples.
- (b) In response to Q4.1.2, a fair percentage of candidates could not provide the link between soil erosion and its impact on agricultural production. They could explain loss of soil fertility but not its effect on agricultural production. Responses included 'plants and animals taken away by soil erosion'; 'it will be difficult to build houses' and 'the profit of businesses will be affected'.
- (c) In Q4.2.3 candidates' responses indicated confusion between the types of income tax. They could not fully describe *progressive income tax* and lost marks for incomplete answers. Many explained *proportional income tax*, where one pays more tax the more one earns. The increased rate of tax was omitted from their response.
- (d) Most candidates provided other methods to redistribute wealth and income, rather than the redress methods in response to Q4.2.5. Candidates mentioned traditional methods like *progressive income tax* and *cash grants*.
- (e) In Q4.3.1 when identifying an environmental problem related to the reduction of plant and animal species, *biodiversity* instead of *biodiversity loss* was a popular response. Some candidates quoted entire sentences from the extract.
- (f) A number of candidates described *land pollution* incorrectly in Q4.3.2, associating it with chemical waste and air pollution. A common response was 'land pollution is pollution of the land'. Other responses included a general definition of pollution.
- (g) In Q4.4 the technical aspects of drawing graphs were not met. Errors included incorrect cost curves, labelling *revenue* curves as *cost* curves, and drawing the incorrect graph (monopoly). Explanations included aspects not shown in the graph. The identification of the profit maximisation point and the positioning of cost curves were incorrect. Some candidates only wrote the explanation without drawing the graph.
- (h) In Q4.5 many candidates merely listed strategies used to promote tourism in South Africa. As a higher-order question, candidates were expected to provide detailed explanations of the strategies. Consequently, many candidates scored a maximum of only two out of eight marks.

##### Suggestions for improvement

- (a) A major contributing factor to poor performance is the incorrect interpretation of the question due to a lack of thorough understanding of a particular concept. This negatively influences application in a context that is relevant to the question. It also compromises logical reasoning. Teachers should refrain from providing marking guidelines to learners before they attempt challenging questions, as this prevents them from thinking critically about the question.

- (b) Teachers should focus on preparing learners to answer questions effectively by emphasising the interpretation of question requirements and the use of appropriate Economics terminology in responses. Learners need to develop a deeper understanding of economic concepts and practise expressing ideas using correct subject-specific language to improve clarity and accuracy in written responses.
- (c) Teachers should reinforce graph-related skills through targeted lessons and practical exercises. Furthermore, graph-drawing skills should be introduced and strengthened progressively from EMS in Grade 9, through Economics in Grades 10 and 11, and revised thoroughly in Grade 12, in line with the *Examination Guidelines*.
- (d) While the practice of drawing and labelling graphs is essential to learners' understanding of various concepts and content related to a topic, teachers should also encourage learners to regularly provide explanations of given graphs. Credit must be given to explanations related to the graph. Regular testing and feedback will ensure improved performance in Microeconomics.
- (e) Teachers must spend time explaining the instructional verbs in the *2021 Examination Guidelines* to learners, in detail. Learners should clearly understand the expectations of these verbs, especially in relation to higher-order questions such as *analyse* and *evaluate*. A mere listing of facts without an explanation in context will earn only 2 marks, instead of the full 8 marks.
- (f) Subject advisors and teachers must be made aware that some textbooks and guides have incorrect information, and this is being taught to learners. There is a need to filter the content that is being taught to ensure accuracy, as erroneous information compromises learners' ability to navigate the learning and examination processes successfully.

#### **QUESTION 5: MICROECONOMICS**

In general, the level of performance in this question was satisfactory. The candidates, however, performed poorly in the additional part of the question.

#### **Common errors and misconceptions**

- (a) Many candidates explained more than one characteristic in the introduction, which led to repetition in the body of the essay.
- (b) The following common errors were identified in the main part of the essay:
  - Listing characteristics instead of explanations;
  - Repetition of facts already mentioned in the introduction;
  - Inclusion of characteristics of other market structures;
  - A lack of subheadings and irrelevant subheadings; and
  - Failure to draw the economic profit graph.
- (c) Most candidates performed poorly in the additional part of the essay. They were able to explain the roles of competition institutions; however, they failed to explain how the government prevents the abuse of market power by dominant businesses.
- (d) Although guided by the question paper as to what a conclusion should entail, the writing of a relevant conclusion was a challenge for most candidates. Some candidates repeated content from the introduction and the body, in the conclusion.

### Suggestions for improvement

- (a) Teachers must regularly assess learners on essay questions by focusing on the structure of essays. Teachers should focus on the body and the conclusion of the essay as these areas have been identified as problematic for many learners. Learners must be encouraged to refer to the guidelines provided in the question paper to enhance their essay-writing skills.
- (b) Teachers should ensure that learners are able to interpret questions correctly to avoid the inclusion of irrelevant information in their responses. Learners should be exposed to different questions on the same topic and guided on the interpretation of questions. In this regard, learners should practise how to identify the key issues to be discussed.
- (c) The creation of a framework structure (mind map) before the commencement of essay writing is encouraged.
- (d) In the introduction, it is advisable to describe a different concept based on markets, such as *market structure* or *market*, which will assist learners to elaborate on all the characteristics in the body. If a characteristic is used in the introduction the focus should be on the explanation of only one characteristic to avoid repetition in the main part.
- (e) Teachers need to provide specific informal activities that compare the characteristics of various market structures to enable learners to distinguish between them.
- (f) When teaching topics like *competition policy* and *institutions*, teachers should emphasise the practical role these institutions play in preventing the abuse of market power by dominant businesses. They should use real-world examples of how competition institutions in South Africa have intervened to prevent market power abuse.
- (g) Learners should be encouraged to practise answering higher-order questions. Teachers must unpack questions to guide learners to focus on the key issues demanded by the question. Learners should be engaged in classroom discussions, which will promote their ability to interpret content and think critically because of the feedback they receive.

### QUESTION 6: CONTEMPORARY ECONOMIC ISSUES

In general, the level of performance in response to this question was below average.

#### Common errors and misconceptions

- (a) A fair percentage of candidates were unable to describe *inflation*. Responses included 'an increase or decrease in the general price level', referring simultaneously to inflation and deflation. Other candidates resorted to describing *demand-pull* or *cost-push* inflation.
- (b) The following common errors were identified in the main part of the essay:
  - Repetition of facts already mentioned in the introduction;
  - Mismatching facts between monetary and fiscal policy subheadings;
  - Discussion of causes and consequences of inflation, instead of measures to combat inflation; and
  - A lack of subheadings and irrelevant subheadings.
- (c) The mere listing of facts instead of providing full explanations was evident in the main and additional parts of the essay.

- (d) The additional part of the question was misinterpreted by most candidates. The reasons for international trade were discussed, instead of the effects of trading partners on the South African inflation rate. Some of the effects discussed were not on inflation, but on the economy and economic development.
- (e) The conclusions of many candidates lacked depth and were not of a higher-order thinking level. Facts from the introduction and the main part were repeated.

### **Suggestions for improvement**

- (a) The teaching of all content should be completed in a timely manner so that more opportunities for revision are created. Poor planning and delivery often lead to teachers rushing through the last few modules and not spending enough time on contemporary economic topics. Teachers need to ensure that each topic is given adequate attention, as outlined in the ATP.
- (b) In their conclusions, learners should be taught how to structure a response in support of, or against, the facts mentioned in the body of the essay. During revision sessions, teachers should constantly remind learners of the guideline in the question paper regarding the conclusion to the essay. Learners must be encouraged to write more than one sentence to conclude their essays as they would be unable to provide a good higher-order response in just one sentence.
- (c) Learners must be exposed to current affairs/news/events on a continuous basis from Grade 10. SBA tasks should be prepared based on current issues to help learners to relate the content to the real world.
- (d) Teachers should make the *2021 Examination Guidelines* available to all learners as this would help them to check whether all aspects of the curriculum have been completed and to identify areas where the textbook lacks the relevant information. This will prevent content gaps in the teaching-and-learning process. It will provide opportunities for the teacher to set small tasks for learners to research, which can be given as part of regular homework activities.

# CHAPTER 6

## GEOGRAPHY

The following report should be read in conjunction with the Geography question papers of the November 2025 NSC examinations.

### 6.1 PERFORMANCE TRENDS (2021–2025)

The number of candidates who sat for the Geography examination in 2025 increased significantly by 17 831 compared to that of 2024.

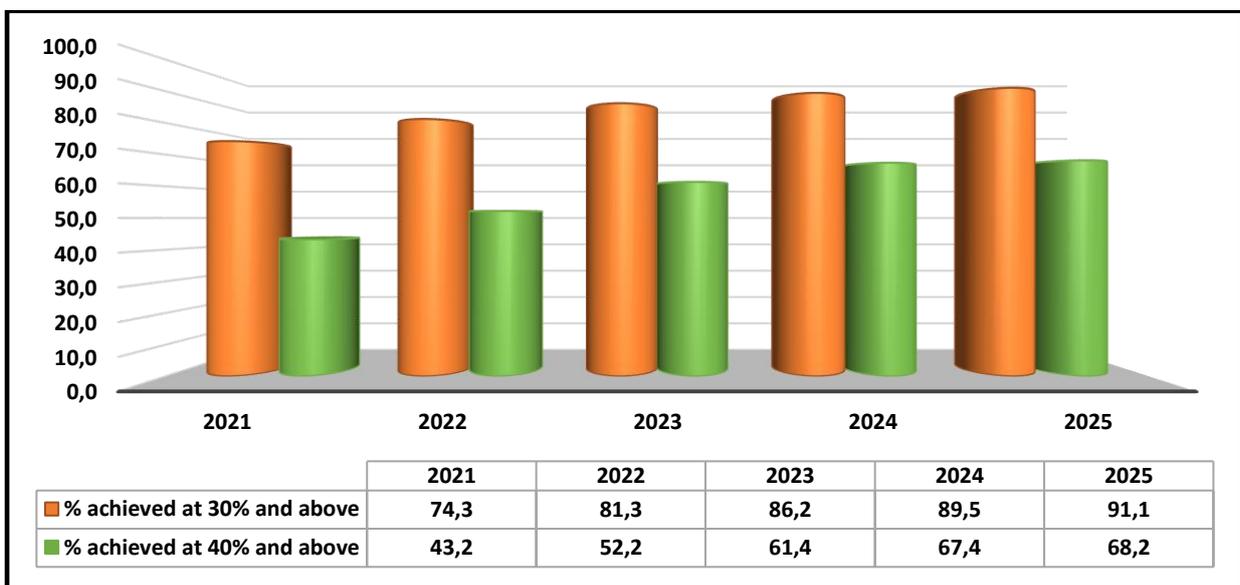
There was a marginal improvement in the pass rate this year. Candidates who passed at the 30% level and above improved from 89,5% in 2024 to 91,1% in 2025. There was a corresponding improvement in the pass rate at the 40% level and above from 67,4% to 68,2% over the past two years. The percentage of distinctions declined from 3,3% in 2024 to 2,3% in 2025. Given the increase in the size of the 2025 cohort, this converts into a decrease in the total number of distinctions from 11 444 to 8 386.

Despite the decline in the number of distinctions the results achieved by this cohort are commendable. Strategic intervention strategies at all levels (national, provincial, districts and schools) ensured learners were adequately prepared. The diligence and perseverance of the above-average candidates also contributed to the favourable overall improvement.

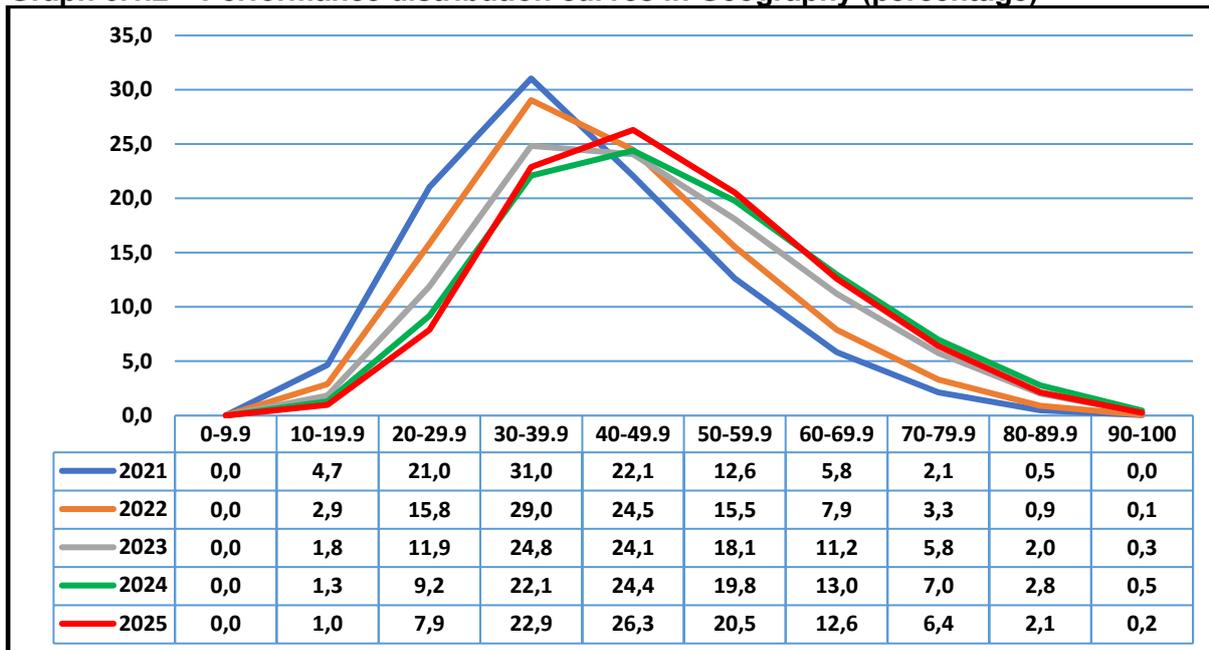
**Table 6.1.1 Overall achievement rates in Geography**

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2021	358 655	266 402	74,3	155 060	43,2
2022	368 882	299 751	81,3	192 612	52,2
2023	344 301	296 887	86,2	211 374	61,4
2024	346 791	310 410	89,5	233 810	67,4
2025	364 622	332 220	91,1	248 711	68,2

**Graph 6.1.1 Overall achievement rates in Geography (percentage)**



**Graph 6.1.2 Performance distribution curves in Geography (percentage)**



## 6.2 OVERVIEW OF CANDIDATES' PERFORMANCE: PAPER 1 AND 2

The general comments below include points that arose from the November 2025 Geography NSC papers, and relevant advice given in previous diagnostic reports has been reiterated.

The November 2025 NSC Geography examination marks the fifth year of having two 3-hour papers of 150 marks each. The two-paper model was again well-received as it offered different benefits, which included:

- **More effective management of time:** Candidates had 3 hours to complete each paper; a total of 6 hours to complete a 300-mark examination.
- **Specific content per paper:** Each paper was written on separate days, affording candidates the opportunity to focus their preparation on specific content relevant to each paper. The map interpretation questions focused on the theory content being assessed for the specific paper, e.g. Paper 1: Physical Geography and Paper 2: Human Geography.

### General comments

#### (a) Quality of candidates' performance

In general, the overall performance showed a slight decline from 2024. The average for Paper 1 was notably lower than that of Paper 2. Candidates struggled more with *Climate and Weather* than in 2024. The continued inclusion of the source material in the question paper and the use of smaller topographical and orthophoto maps made the papers more user-friendly.

It was pleasing to note that most candidates attempted all questions in both Papers 1 and 2. As each question was subdivided into several subquestions, weaker candidates would have been able to score some of the marks allocated to the lower-order questions.

There was some improvement in candidates' achievement in the paragraph questions; however, the need to respond in full sentences remains a challenge. This skill should

be taught, tested and rigorously practised in all activities, tests and examinations. The advice and recommendations suggested in past diagnostic reports seem to have been implemented by teachers to an extent, but there is room for further improvement.

In the shorter-response questions, candidates generally displayed an improved understanding of geographical processes and were able to provide appropriate responses. The topic that reflected the most improvement was *Rural and Urban Settlements* in Paper 2. Candidates continued to experience challenges in Section B on *Geographical Skills and Techniques* which included map calculations, map interpretation and in particular, Geographical Information Systems (GIS). A significant number of candidates struggled to provide map evidence in both Paper 1 and Paper 2. Mapwork application should be integrated with the theory taught wherever possible.

The continued inclusion of part-marking into the marking principles for certain questions has had a positive impact on the performance of the candidates in both papers. Previously, in questions where a factor and qualifier were required to obtain two marks, candidates received either two or zero, depending on whether they gave a full response or not. The inclusion of part-marking since 2022 allowed markers to award one mark where the candidate had given the correct factor without a qualifier. This marking principle was applied in the following questions in 2025: Paper 1: Q1.3.4; Q1.3.6; Q1.4.3; Q1.4.5; Q2.3.1; Q2.5.3 and Q3.2.3. Paper 2: Q2.3.5; Q2.4.5 and Q3.2.2.

**(b) Policy documents and LTSM:**

- The revised *CAPS* document, annual teaching plans (ATPs), the *2021 Examination Guidelines* and Diagnostic Reports are essential planning documents that form the basis of the planning process. Rotational topics must be noted each year. Documentation for 2026 has been sent to all PEDs.
- Prescribed textbooks, study guides and other departmental publications continue to be the primary resources available to teachers. However, teachers are expected to adapt the information to ensure it is correct and remains current.
- Online resources continue to play a significant role in the teaching and learning process. Educational websites, video presentations and shared resources from different provinces and publishers contribute to the continuity necessary in the teaching and learning of Geography.

**(c) Use of past NSC papers and exemplar papers:**

- Accessing and utilising NSC papers from the past five years are essential for teaching and learning. It is evident that teachers make use of these in lessons and revision. NSC Geography papers serve as reliable sources on questioning patterns and styles. Recent trends in the testing of short objective questions using more than one source in Paper 1(Q1.1;Q1.2 and Q2.1) and Paper 2 (Q1.1; Q1.2 and Q2.2) and the use of infographics were reflected in Paper 1:Q1.4 and in Paper 2: Q1.4; Q2.3 and Q2.5.
- The migration to two equal-weighted papers from 2021 did not necessitate any changes to the content. It is, therefore, essential that every learner has access to past papers from November 2021, as these are based on the current *CAPS* content and format. Teachers and learners should familiarise themselves with the specific content for each paper and extract the relevant questions from past examination question papers when preparing for examinations. Special note must be made of the relevant annual rotational topics in the Economic Geography of South Africa module.
- The exemplar papers with digital maps are also available and will assist teachers

and learners. The combined A4 topographical and orthophoto maps are now more accessible as additional copies can be printed by schools.

### General comments

Some areas of concern that were raised in the 2024 Diagnostic Report remain pertinent in the context of the 2025 NSC examination papers. They are emphasised here once again.

There were sufficient lower-order questions to give all candidates a fair chance to achieve a pass mark of at least 30%. Most of these were found in the short objective questions. At the start of a number of the subquestions in Section A, there were also lower-order questions. Answers to these questions could be obtained from the source, e.g. Q1.3.1; Q1.4.1; Q1.4.2; Q1.5.1 and Q2.5.1 in Paper 1 and Q1.3.1; Q1.3.2; Q1.4.1; Q1.4.2; Q1.4.3; Q1.5.1; Q2.3.2; Q2.3.3 ; Q2.3.4; Q2.5.2 and Q2.5.4 in Paper 2.

- (a) Thorough curriculum coverage was a challenge for a significant number of candidates. In Paper 1: Q1.3 mid-latitude cyclones (15 marks), Q1.4 tropical cyclones (15 marks) and Q2.4 meanders (15 marks) presented a challenge to candidates, as did the following questions in Paper 2: Q1.4 urban profile depicting land-use zones (15 marks) Q1.5 urban blight and urban renewal (15 marks) and Q2.3 food security (15 marks) and Q2.4 Dube Trade Port IDZ (15 marks).
- (b) Rotational topics that were tested in 2025 were the following: sugar cane production, gold mining and the Dube Trade Port IDZ. Sections stipulated in the *2021 Examination Guidelines*, with regard to rotational topics, were unfamiliar to a number of candidates.
- (c) Questions that required a factor/explanation and qualifier in Paper 1: Q1.3.4 (4 marks), Q1.4.3 (4 marks), Q1.4.5 (4 marks) Q3.2.3 (2 marks) and in Paper 2: Q2.3.5 (8 marks), Q2.4.5 (6 marks) and Q3.2.2 (2 marks) were poorly answered by a significant number of candidates; they either gave only the factor/explanation or the qualifier.
- (d) A significant number of candidates' responses were still not aligned to the demands of the instructional verbs in the question. A large number of candidates did not know how to approach these questions or understand what was expected of them. Words such as 'differentiate', 'classify', 'describe', 'identify', 'account', 'quote', 'suggest', 'explain how', 'explain why' and 'explain' require different types of responses. This resulted in candidates losing many marks in the middle- to higher-order questions.
- (e) **Short objective questions:** Candidates generally performed well in these questions. A variety of short objective-type questions were used, e.g. multiple-choice questions: Paper 1 (Q1.2 *aspect and valley winds* (65%); Q2.2 *river capture* (63%)), Paper 2 (Q1.2 *urban settlement concepts and classification* (64%); Q2.1 *sugar cane production and gold mining* (64%); match the items/columns/descriptions; choosing the correct word in the brackets or identifying features: Paper 1 (Q1.1 *synoptic weather map interpretation* (76%); Q2.1 *drainage basin terminology* (73%)), Paper 2 (Q1.1 *types of settlements* (81%) and Q2.2 *economic activity contribution to GDP* (78%).
- (f) **Source-based questions** (1 or 2 marks): Questions that required basic comprehension skills to obtain answers directly from sources like infographics remained a challenge for some candidates: Paper 1: Q1.4.1; Q1.4.2; Q1.5.1; Q2.3.2; Q2.3.4; Q2.5.1; Q2.5.2; Paper 2: Q1.3.1; Q1.3.5; Q1.5.1; Q2.3.2; Q2.3.4; Q2.4.2; Q2.4.3.
- (g) **Short data-response type questions** (2, 4 or 6 marks): These data-response type questions, where short explanations or more detailed responses were required, were

often poorly answered. In a significant number of cases, candidates were unsure whether a one-word answer or longer response was required: Paper 1: Q1.3.4; Q1.4.3; Q 1.4.5; Q1.5.3; Q2.3.5; Q2.3.6; Q2.4.3; Q2.5.3; Q2.5.4; Paper 2: Q1.3.3; Q1.4.4; Q1.5.4; Q2.4.5.

- (h) **Paragraph-style questions** (8 marks): These questions were of middle- to higher-order, as is the norm. Candidates' performance in Paper 1 showed an improvement in Q1.5.4 on *berg winds* but many candidates could not explain the *process involved in the formation of an oxbow lake* in Q2.4.4. In Paper 2 the candidates' performance in paragraph questions was average and similar to that of 2024 (Q1.5.4 on *urban blight* and Q2.3.5 on *food security and small-scale farming*).
- (i) Some candidates did not display sound knowledge of the basic geographical concepts, and therefore were not able to answer questions of a higher cognitive demand linked to these regularly tested topics. Paper 1: Q1.3 (*mid-latitude cyclones*); Q1.4 (*tropical cyclones*), Q2.4 (*oxbow lake formation*); Paper 2: Q1.5 (*urban renewal*) and Q2.3 (*food insecurity*); Q2.5 (*informal sector*).
- (j) A continued lack of regular practice to master the application skills in the Geographical Skills and Techniques section of the question papers impacted negatively on candidates' performance. Candidates did not make effective use of the topographical map and orthophoto map to assist them in answering questions. It was also evident that the integration of map skills and theory was not thoroughly practised by a significant number of candidates. These two aspects of Geography need to be taught in an integrated manner. Regular practice of calculations is necessary for candidates to prepare sufficiently for the NSC examinations.
- (k) Map interpretation seems to be an ongoing challenge. Questions that required candidates to give answers relating to the topographical maps and orthophoto maps or refer to a specific block on the maps continued to be a challenge, e.g. Paper 1: Q3.2.3; Q3.2.4; Q3.2.5; Q3.2.6 and Paper 2: Q3.2.1; Q3.2.2; Q3.2.3; Q3.2.7. A significant number of candidates gave general answers or definitions either not found on the maps or in the relevant blocks and therefore they lost marks.
- (l) Candidates continued to struggle with *Geographical Skills and Techniques* and *Geographical Information Systems (GIS)* which were examined in both question papers. Some candidates lost marks for not indicating the correct steps in calculations: Paper 1: Q3.1.1 (difference in height: 2 marks); Q3.1.3 (average gradient: 4 marks); Paper 2: Q3.1.2 (area calculation: 4 marks) and Q3.1.4 (magnetic declination: 3 marks). Many candidates did not understand the terminology and the application thereof to answer questions on (GIS). Paper 1: Q3.3.3 (*data manipulation*); Q3.3.5 (*resolution*). Q3.3.5 (*pixels*) and Paper 2: Q3.3.1(*data layering*); Q3.3.2 (*data layer*); Q3.3.4 (*buffering*).
- (m) Most of the major topics in Section A in both Paper 1 and 2, and all sections regarding *Geographical Skills and Techniques* mentioned in the CAPS document, were tested. This benefited the candidates who studied their work comprehensively and made effective use of past papers.

### General suggestions for improvement

- (a) Teachers need to emphasise the importance of reading the instructions carefully before answering the question paper. These instructions provide important information with regard to the length of responses (point 9), indication of the unit in the final answer (point 10) and showing all steps in calculations (point 16). Learners should be

encouraged to use their reading time effectively.

- (b) Instructional verbs that require a higher cognitive demand continue to be a challenge for learners. Questions containing these instructional verbs should always be answered in full sentences, showing a clear knowledge and understanding of the geographical content tested. The instructional verbs that were deemed the most difficult in this past examination were: 'explain how' and 'explain why'. These questions require answers that include a factor/explanation and a qualifier. A comprehensive list of typical instructional verbs used in Geography and the response required to meet the intention of the instructional verb is included in the *2021 Examination Guidelines*. Teachers are encouraged to make this list available to their learners and to use the instructional verbs in class activities regularly. The use of the marking guidelines from this past examination will assist teachers and learners to understand what is required.
- (c) Reading for meaning continues to be a challenge. This results in learners not being able to understand the requirements of the question. Highlighting the instructional verbs and important aspects of the question will definitely assist learners.
- (d) Most questions require interpretation and a thorough understanding of geographical processes. Therefore, learners cannot merely reproduce content knowledge gained in the classroom. They should practise the application of theory taught, using a variety of sources. Regular informal tasks/activities will reinforce these important techniques. Learners should focus on the specific demand of the question and how it relates to a specific source.
- (e) As geographical issues are often assessed, learners should be able to focus on the causes, impacts and solutions, e.g. Paper 1: Q1.3.6; Q1.5.4; Q2.5.5 and Paper 2: Q1.3.3; Q1.4.4; Q1.5.3; Q1.5.4; Q2.3.5 and Q2.4.5. In-depth knowledge of such issues is essential. Additional research by teachers and learners might be required. There are many reliable geographical websites that will provide up-to-date and valid information. Reviewing past question papers will also give learners an idea of how these questions could be phrased.
- (f) Teachers must note that the short objective questions (Q1.1, Q1.2, Q2.1, Q2.2) do not test only lower-order thinking skills. Some questions might require higher-order thinking skills. Learners must read the instructions carefully before answering the objective questions. It should be noted that more than one source might be used in these questions.
- (g) Learners must be exposed to different styles of multiple-choice questions. In both papers complex multiple-choice questions are asked: Paper 1: Q1.2.3; Q1.2.5; Q2.2.7 and Paper 2: Q1.2.2, Q1.2.8 and Q2.1.3; Q2.1.4 (1 mark each). It has to be noted that there are distractors in the options given in the multiple-choice questions, e.g. Paper 1: Q1.2.6 and Paper 2: Q1.2.1; Q1.2.6. Learners must consider all four options before they make their choice. Teachers are strongly encouraged to update their methods of setting compliant multiple-choice questions which can include lower-, middle- and higher-order cognitive skills testing. Learners should be made aware of the principles underlying multiple-choice questions. Take note that two or more topics might be tested in the short objective questions, as in Paper 1: Q1.2 (*aspect and valley winds*) and Paper 2: Q1.1 (*hierarchy of settlements, classification of settlements, shape and pattern*).
- (h) Effective and regular practice of paragraph writing is essential. Learners must write in full sentences and should NOT use bullets or point form. These questions usually require a degree of critical and analytical thinking, which requires a higher cognitive

demand. Since paragraph questions are 4 x 2 marks, four points (if required) must be given; answers in many instances require qualification. The recommended eight lines should be used as a guide to the length of the response. This is done to avoid long-winded answers and time-wasting.

When planning a response, learners should underline or highlight the main topic of the question, the instructional verb and the focus areas of the question. Good practice when writing paragraph responses would be to make four points and then elaborate on each point.

Regular paragraph writing in short informal and formal tests/tasks, as well as in internal examinations, will allow learners to improve their skills and confidence when attempting these questions.

- (i) Teachers must ensure that learners are familiar with the geographical terms/concepts and definitions required. Learners should compile a glossary of terms/concepts and an explanation of each in their notebooks for easy reference. This will assist them when describing and defining concepts and terms. Definitions/Concepts are often asked as the introductory question on a particular topic and are worth 2 marks each (Paper 1: Q2.3. and P2: Q1.4.1; Q2.3.1; Q2.5.1). As these are seen as concepts, they do not have to be explained verbatim. Baseline assessments and other informal tasks which mirror the questions of the NSC examinations should be practised regularly, focusing on the concepts taught. It is suggested that this be done following completion of every subsection.
- (j) Geography is a dynamic subject and new information on numerous topics is updated regularly. Recent climatological (e.g. tropical cyclones) and geomorphological events must be used in teaching and learning. The rural, urban and economic environment is also constantly changing. Teachers are, therefore, encouraged to collect resources on an ongoing basis and link current events to content taught in Grade 12. As life-long learners, teachers must stay abreast of new developments in their subject.
- (k) Teachers are encouraged to include compliant source-based questions (like those used in the NSC examinations) in class assignments, tests and examinations. They should make use of relevant and recent reliable resources from the internet and avoid using sources that appear only in textbooks and are familiar to learners. Teachers should expose learners to a variety of sources, e.g. diagrams, sketches, photographs, graphical data (line graphs, bar graphs and pie graphs) and infographics. Learners should be taught how to access and interpret information from these different sources. Teachers and learners must be aware that different sources may also be combined for examination purposes, for example, Paper 1: Q1.3; Q1.4; Q2.4 and Paper 2: Q1.3; Q1.4 and Q2.3 The interpretation of graphs and tables containing statistics remains a challenge. The more learners are exposed to working with them, the more confident they will feel about answering these questions.
- (l) Infographics are informative and were used as stimuli in both question papers. This information was valuable and should have assisted the learners in obtaining the correct answers (Paper 1: Q1.4 and Paper 2: Q2.3; Q2.5). An infographic is a visual representation of information or data, for example containing written information (extract), a sketch or map, graphs, tables and photographs. Extracts contain valuable information to guide learners to appropriate answers. All the information given should be considered when answering questions. The skill of integrating the visual and written information should be practised regularly. Learners could be asked to quote from the extract in the infographic which then needs to be verbatim and not paraphrased. If learners are asked to provide evidence from the infographic, they are not expected to

quote directly.

- (m) It is important for teachers to use plan views, cross-sectional and long-profile sketches when teaching various terms/concepts. Learners should be able to draw the correct view of features as was asked in Q1.3.5 (cross-sectional sketch of a cold front) in Paper 1 and Q3.3.3 (paper GIS) in Paper 2. Labelled sketches continue to be examined and should be practised regularly. Teachers are encouraged to ensure learners produce their own labelled sketches in their workbooks to practise this skill.
- (n) Teachers should be aware of the relevant subject content to be taught by constantly referring to the *CAPS* document and the *2021 Examination Guidelines*. Details regarding the choice of agricultural product (maize), mineral (platinum), two core industrial areas (Gauteng (PWV) and Port Elizabeth-Uitenhage), a spatial development initiative (SDI Wild Coast) and an industrial development zone (IDZ Coega) to be studied for 2026 have been communicated to all learners.
- (o) Rotational topics like *Spatial Development Initiatives (SDIs)* and *Industrial Development Zones (IDZs)* must be well covered in teaching and learning. In many cases, topics are only briefly mentioned or are not found in textbooks at all. Teachers and subject advisors need to conduct additional research on these topics to share with one another. The *2021 Examination Guidelines* has divided these topics into subsections, and it is essential that teachers provide sourced-based information on these subsections to support learners.
- (p) As most prescribed textbooks do not cover all the subject content mentioned in the *CAPS* and the *2021 Examination Guidelines* to the same degree, teachers should do additional research themselves. Teachers should consult more than one textbook if possible. Information provided in the various textbooks might not always be geographically correct and, when in doubt, additional research should be conducted on the topic.
- (q) Teachers should provide each learner with a copy of the *2021 Examination Guidelines*, highlighting the content that will be taught. This can be used as a checklist to ensure that all content is covered, and to assist in preparing for tests and examinations. The format of each examination paper is also clearly laid out.
- (r) To improve learner performance, teachers must refer to previous examination papers as a guide to ensure that the standard of questions and the variety of questioning techniques used in assessment at school level is appropriate. This would also assist teachers to show learners how scaffolding of questions occurs, from those testing lower-order cognitive skills to the higher-order questions which require more advanced thinking skills. Previous question papers should not, however, be used as a tool for predicting topics in future papers. Teachers are to note that content knowledge is the key to improving understanding. Question papers are used to assess application of that content.
- (s) Teachers must ensure that the distribution of marks in the internal assessment tasks is compliant with the requirements stipulated in the *CAPS*. Blooms' Taxonomy or a similar tool should always be supplied for formal tests, examinations and tasks. The weighting is 25% lower-order, 50% middle-order and 25% higher-order. If too many lower-order questions are asked in the internal assessment conducted at school-level, learners will not be exposed to questions addressing a higher cognitive demand, as asked in the final NSC examinations. This will also give learners false notions of the level of performance required in the NSC examinations. All tasks should be based on the new November 2021 to 2025 formats regarding structure and content distribution.

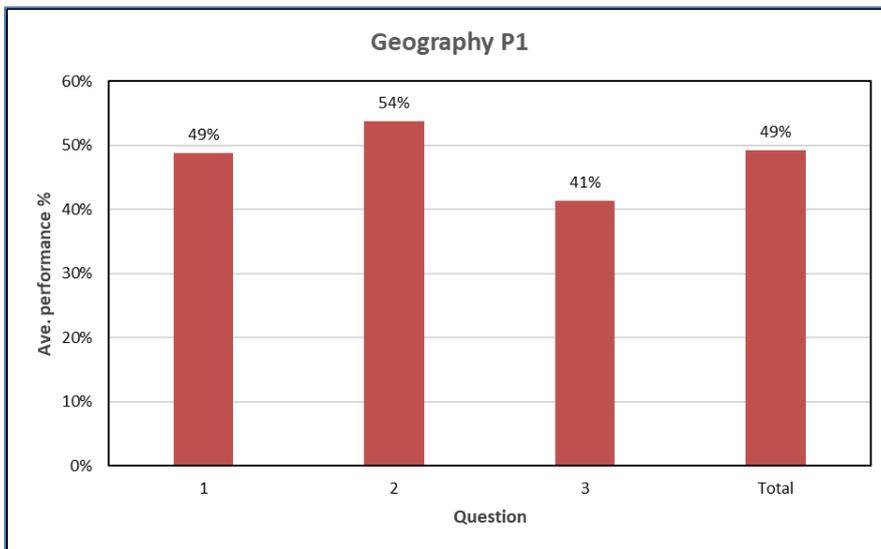
- (t) Teachers need to emphasise the importance of the units of measurement (point 10 in the Instructions and Information in all NSC question papers) in the final answers where required. Learners will not be awarded a mark if the correct unit of measurement is not provided in the final answer. Learners should be made aware that this instruction applies to both the theory and mapwork sections of the question paper.
- (u) With regard to improving mapwork results, learners must conduct a proper analysis of the general information of the map and orientate the topographical map to the orthophoto map before answering Section B on *Geographical Skills and Techniques*. This will assist in answering questions in Paper 1 (Q3.2.1 and Q3.2.2) and Paper 2 (Q3.2.6). When orientating the maps, an easily identifiable feature on both maps should be used. Features like roads, railway lines and the shape of built-up areas can also be used for map orientation (cross-referencing). By identifying the area indicated by the red/black block on the topographical map, a learner can determine the location of the orthophoto map on the topographical map. This is most important when it comes to questions involving cross-referencing.
- (v) Learners need to understand the importance of integrating theoretical knowledge with *Geographical Skills and Techniques*. Most mapwork integration is found in Q3.2 (12 marks) in both papers. The frequent use of topographical maps and orthophoto maps as teaching aids in theory lessons will assist learners. Mapwork skills and interpretation exercises should be regularly practised in all types of questions, e.g. multiple-choice, map calculations, map application and interpretation and GIS.
- (w) The responses to questions in Section B on *Geographical Skills and Techniques* are mostly derived from the maps provided. Regular revision using past papers from 2021 to 2025 will assist learners to master this skill.
- (x) All aspects of *Geographical Skills and Techniques*, as stipulated in the *2021 Examination Guidelines*, must be covered thoroughly.
- (y) *Geographical Information Systems* must be taught in detail. Teachers must emphasise the significance, purpose and application of GIS terms/concepts: Paper 1: Q3.3.2 (*data manipulation*); Q3.3.4 (*resolution*) and Paper 2 Q3.3.3(*data layering*); Q3.3.2; Q3.3.3 (*data layer*); Q3.3.4 (*buffering*).
- (z) Teachers must expose learners to the methods/steps as indicated in the *2021 Examination Guidelines* and NSC marking guidelines (point 16 in Instructions and Information under Specific Instructions and Information for Section B). It must be noted that while certain methods may be correct in Mathematics, they may not contain all the steps that are required in Geography.
- (aa) When practising and setting *Mapwork* exercises, teachers are encouraged to use a variety of maps which reflect the different regions of South Africa, e.g. inland or coastal regions from different provinces. This will prepare candidates to answer questions on any map set in the NSC examinations. A variety of maps are available to teachers and learners from past NSC examinations. Teachers should be encouraged to use maps that are in the new A4 format.
- (bb) In addition to making use of previous NSC examination papers, there are television revision programmes available to explain and revise important geographical concepts; other useful tools include *YouTube* live feeds and presentations. Exemplar papers showing the new Geography paper format are available on the DBE website.
- (cc) Teachers are encouraged to refer to the updated Instructions and Information page in

the 2025 NSC examination papers and to include this in their formal tests and examinations. This will prepare the learners for the final examination. There are general instructions for Section A and specific instructions for Section B (*Geographical Skills and Techniques*) that should be highlighted. The annexure should also be incorporated into examination papers as was the case in the final November 2021 to November 2025 NSC question papers. Teachers are encouraged to implement the new format of testing of short objective questions using a number of related sources instead of just one source.

### 6.3 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 1

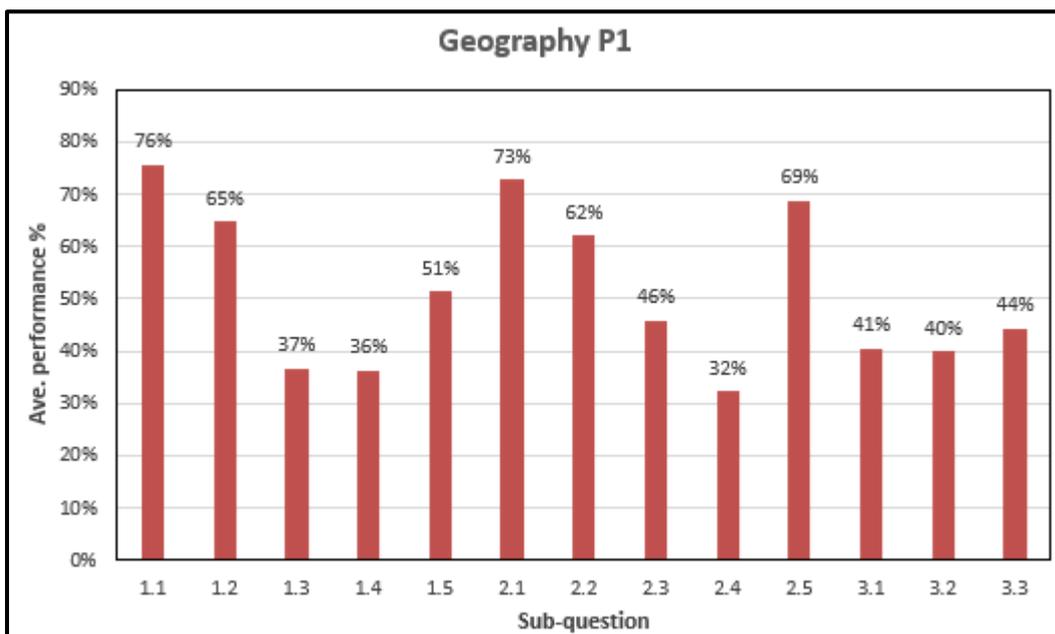
The following graph is based on data from a random sample of 100 candidates' scripts per province. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

**Graph 6.3.1 Average performance per question in Paper 1**



Q	Topics
1	Climate and Weather
2	Geomorphology
3	Geographical skills and Techniques

**Graph 6.3.2 Average performance per subquestion in Paper 1**



Sub-Q	Topics	Sub-Q	Topics	Sub-Q	Topics
1.1	Synoptic weather map	2.1	Drainage basin concepts	3.1	Map skills and calculations
1.2	Aspect and Valley winds	2.2	River capture	3.2	Map interpretation
1.3	Mid-latitude cyclone	2.3	Longitudinal profiles	3.3	Geographical information systems (GIS)
1.4	Tropical cyclone	2.4	Fluvial landforms and rejuvenation		
1.5	Berg winds	2.5	Catchment and river management		

## 6.4 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 1

### SECTION A

#### QUESTION 1: CLIMATE AND WEATHER

##### Common errors and misconceptions

- (a) Although candidates generally performed well in Q1.1 (8 marks), many struggled with two specific items: Q1.1.5 on *ridging*, which seemed unfamiliar to them and Q1.1.6 on identifying a *moisture front*.
- (b) *Aspect* and *valley winds*, which form part of valley climates, were tested in Q1.2 (7 marks). While candidates generally performed well, some struggled with the complex multiple-choice questions in Q1.2.3 (*slope temperature and associated moisture content*) and Q1.2.5 (*conditions needed for the formation of a katabatic wind at night*). Candidates confused the slopes as they did not seem familiar with north and south slope which is an alternative way to label the north-facing or south slope and south-facing or north slope. These were of a higher cognitive demand as candidates had to select two responses to complete the statement. In Q1.2.7 candidates struggled to select the correct negative physical (natural) impact.
- (c) Q1.3 (15 marks) on *mid-latitude cyclones* was poorly answered. A combination of sources was provided to assist candidates: two stages of development of mid-latitude cyclones and two photographs showing weather conditions associated with them. This question tested candidates' application of theoretical knowledge regarding the stages of development of mid-latitude cyclones and the associated weather conditions. Many candidates struggled to identify and name the boundary between two air masses in Q1.3.1 (1 mark). Q1.3.2 (1 mark) required candidates to show a greater understanding of how a wave could have been formed at the boundary referred to in Q1.3.1. In Q1.3.3 some candidates could not correctly identify the stage of the mid-latitude cyclone associated with weather conditions C and D (1 mark).

Q1.3.4 (4 marks) required candidates to explain how the weather conditions represented in photographs C and D formed; most could not identify the *gale force (very strong) wind* and *heavy rainfall* depicted in the photographs. This was an 'explain how' question which required a factor and a qualifier. In Q1.3.5 (4 marks) a number of candidates could not distinguish between a cross-section and a plan view and drew the incorrect sketch. Many did not provide labels and could not be awarded marks.

Candidates performed poorly in Q1.3.6 (4 marks) which was a higher-order difficult question and required candidates to explain how a *cold front occlusion* is formed by

referring to air masses of different temperatures ahead of and behind the cold front. Both a factor and qualifier were required to achieve full marks.

- (d) The poorest performance was in Q1.4 (15 marks) with an average of 36%. The questions were based on an infographic which included a fact file, a location map showing the position of Tropical Cyclone Dikeledi, and two satellite photographs showing the change in position and intensity of the tropical cyclone over time. Many candidates could not correctly identify the stage of development of Tropical Cyclone Dikeledi in Q1.4.1 (1 mark) and in Q1.4.2 (2 marks) a number of candidates did not use the fact file as was required to obtain reasons to support their answer to Q1.4.1.

Q1.4.3 (4 marks) required candidates to use the location map to explain why the cyclone developed between 5° and 20° S of the equator. The required response was directed towards the latitudinal position only.

Q1.4.5 (4 marks) was pitched as a higher-order difficult question and required candidates to track the change in position of the tropical cyclone over time as it moved over land to over the Mozambique Channel which is different to what is normally tested. Candidates struggled to respond to the question correctly which shows that many are falling into the trap of learning responses from past papers instead of applying their knowledge to a specific scenario.

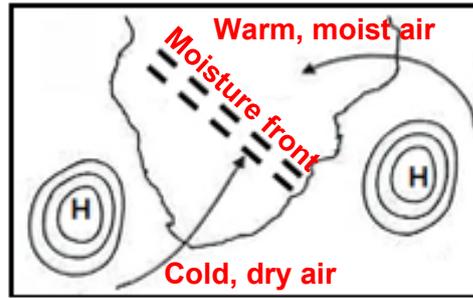
- (e) Q1.5 (15 marks) was the best answered question by candidates, according to the graph. However, a number of candidates experienced challenges with some of the subquestions. In Q1.5.2 (2 marks) candidates struggled to interpret the station models of Durban or East London, as was required. Q1.5.3 required candidates to explain the processes that lead to berg winds being warm and dry. Most could explain why the air mass is warm, but many could not account for the air mass becoming dry as it descends. The paragraph question Q1.5.4 (8 marks) was well answered as candidates were able to suggest sustainable strategies to reduce the negative impact of veld fires.

### Suggestions for improvement

- (a) In Q1.1 learners needed to match the statement in column A with the correct response in column B. In Q1.1.5 the definition of ridging was stated, and diverging or ridging were given as options. Ridging/Wedging is the elongation of isobars extending outwards from a high-pressure cell.



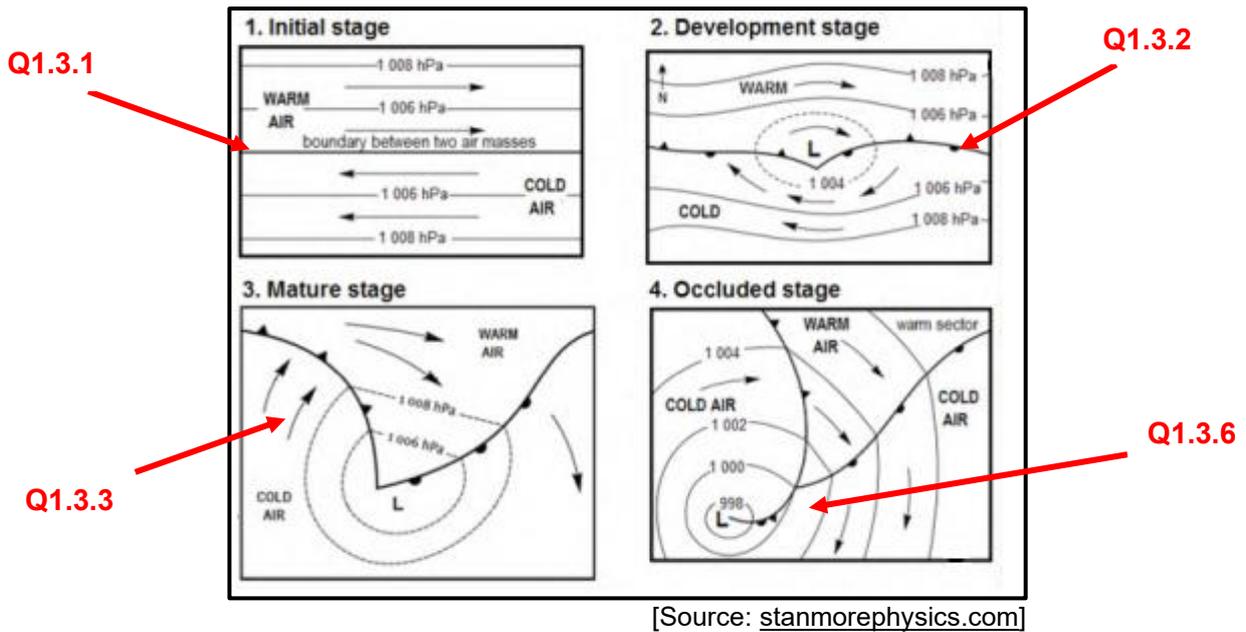
Q 1.1.6: Both a moisture front and the Intertropical Convergence Zone (ITCZ) are areas where two air masses meet. The difference between the two is that at the moisture front cold, dry air from the SW meets warm, moist air from the NE. At the ITCZ both are warm air masses and blow from the subtropics towards the equator.



[NSC, November 2025]

It is important to note that although the basics of synoptic weather maps are taught in Grades 10 and 11, these features are revisited in Grade 12 when teaching mid-latitude cyclones, tropical cyclone conditions and travelling disturbances. Teachers are encouraged to integrate synoptic weather maps into the teaching of the main topics in Climate and Weather. It is vital that learners are able to identify a variety of features on a synoptic weather map. As this assesses application skills, learners need to practise this regularly.

- (b) The short objective multiple-choice questions in Q1.2 tested two features associated with *valley climates*, namely slope aspect and valley winds. Photographs were used as sources for the questions. Q1.2.3 and Q1.2.5 were complex multiple-choice questions where two responses had to be selected. Teachers should include questions like these in tests, tasks and internal examinations. The use of a variety of labelled sources, like photographs and sketches, is suggested in teaching and testing to prepare learners adequately. In Q1.2.3 knowledge of north-facing vs south-facing slope characteristics was tested. The clue provided on the photograph was the slope where trees are found. In the Southern Hemisphere they are grown on the cooler, moister slope which is the south-facing slope (indicated as the north slope on the photograph). In Q1.2.5 the main conditions for katabatic wind formation was tested: terrestrial radiation and low temperatures. Q1.2.7 was a follow-up question regarding the impact of frost on the valley floor asked in Q1.2.6. The physical natural impact refers to the natural phenomenon only.
- (c) There are a number of different ways in which *mid-latitude cyclones* can be tested: synoptic weather maps, case studies and the more theoretical aspects like characteristics of the stages of development, which was the focus in 2025. Teachers are encouraged to cover all of the above in order to prepare learners adequately. All four stages of development were tested. Q1.3.1 tested the learners' understanding of a polar front which occurs in the initial stage. In this instance, the definition was provided, and the concept was the required response which is an alternative way of testing. Q1.3.2 asked for one reason why a wave formed in the development stage. This tested the candidates' content knowledge. Responses like atmospheric instability, friction drag, jet streams, orographic features and temperature or wind speed differences were accepted.



Q1.3.3 required candidates to use sketch B (similar to sketch 3 above) in the NSC 2025 question paper to name the stage of development of the mid-latitude cyclone. Indicators are: well-developed cold and warm fronts, warm and cold sectors between the fronts, pressure reading at the apex of the two fronts is approximately 1000 hPa.

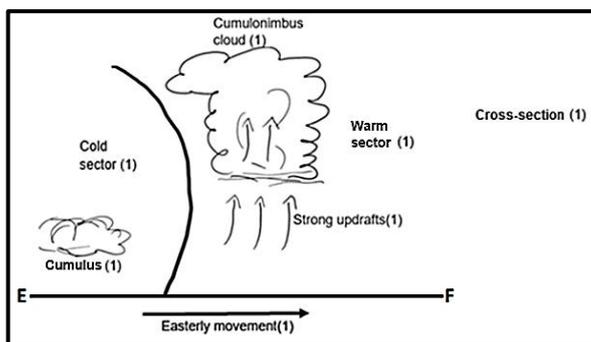


[Source: NSC, November 2025]

The two photographs above were used to test weather conditions associated with mid-latitude cyclones in Q1.3.4. Photograph C illustrates very strong wind shown by the way the trees have been blown to one side and photograph D shows heavy rainfall which results in flooding. For the water level to rise high enough to flood the roads, as seen in the photograph, very heavy rainfall must have occurred. Many candidates gave flooding as a response which is not a weather condition but rather an impact of heavy rainfall. The question required candidates to explain how the factor caused the weather condition which they identified in the photographs, as is shown in an extract from the marking guideline below.

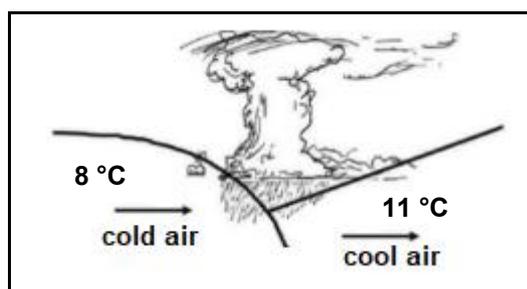
Steep pressure gradient (factor) results in gale force/strong winds (qualifier)(2)  
 Strong updraughts/rapid upliftment (factor) results in (cumulonimbus clouds) heavy rainfall (qualifier) (2)  
 Air behind the cold front undercuts the warm air ahead of it (factor) gives rise to (cumulonimbus clouds) and heavy rainfall (qualifier) (2)  
**[ANY TWO- MUST MENTION GALE FORCE/STRONG WINDS AND HEAVY RAINFALL]** (2 x 2)

Teachers should ensure that learners are able to draw the various stages of development of a mid-latitude cyclone. The labelled cross-section from E-F of a cold front required in Q1.3.5 should be practised and tested regularly. Clear guidance was given as to what needed to be included in the cross-section. Teachers are reminded that the cold front symbol ▲▲▲ is not to be included in the cross-section and is only found on a synoptic weather map.



Marks will be allocated for:  
 Correct cross-section drawing (1)  
 Direction of movement of system (1)  
 One type of cloud (Cb /Cu) (1)  
 One sector (1)

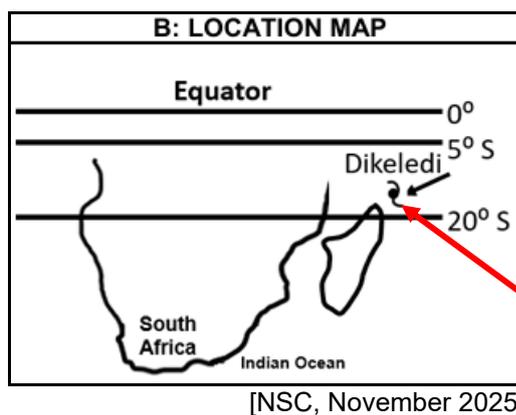
Q1.3.6 tested the candidates' understanding of how a *cold front occlusion* forms. This was an 'explain how' question which required candidates to describe the processes that take place. They had to make use of the temperatures given in sketch B. The air behind the cold front is 8 °C and the air ahead of the warm front is 11 °C. The coldest air mass, which is the air behind the cold front, remains in contact with the earth's surface while the warmer air mass is undercut and uplifted over the colder denser air forming a cold front occlusion. The sketch below shows a cross-section of a cold front occlusion.



[Past NSC paper]

- (d) When teaching the *stages of development of tropical cyclones*, it is important that teachers emphasise that each stage is characterised by specific changes to the pressure in the centre of the system. In Q1.4.1 candidates had to make use of the fact file information by referring to the pressure at the centre (996 hPa) to determine the stage of development. The fact that the pressure reading is just below 1000 hPa indicates that it is the immature stage. During this stage wind speeds are also generally low as indicated by the wind speed reading of 75 km/h from the fact file. This information was required for responses in Q1.4.2. Q1.4.3 tested the conditions which allow for tropical cyclones to develop. The location map in the fact file was provided to

assist candidates in the following way.



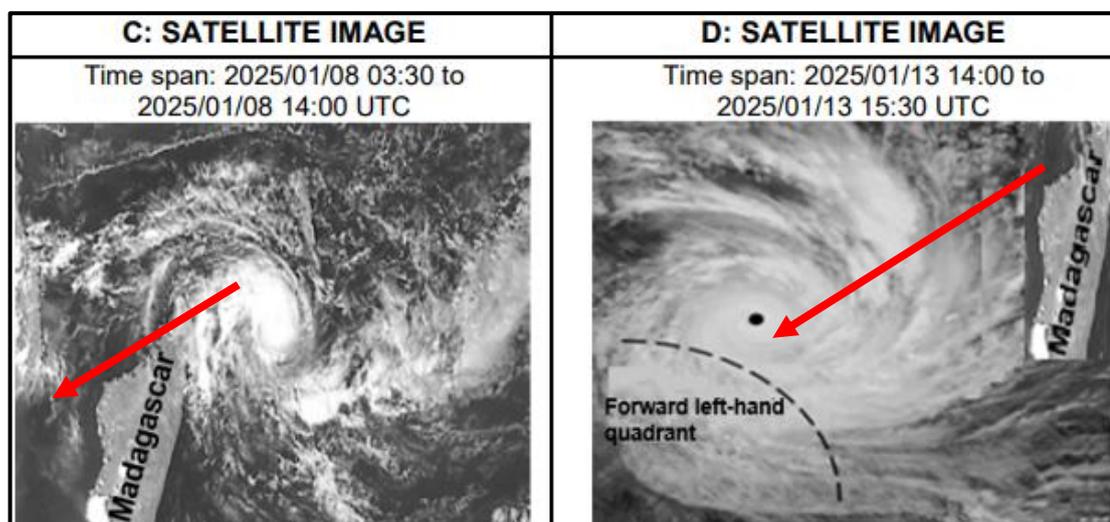
Coriolis force is present here

Warm oceans promote evaporation and release latent heat after condensation which results in an intense LP forming

Teachers should teach learners to respond directly to a question by stating what they see or observe and not by what is not seen. Q1.4.3 restricts answers to between 5°–20° S and not 0°–5° S where there is no Coriolis force).

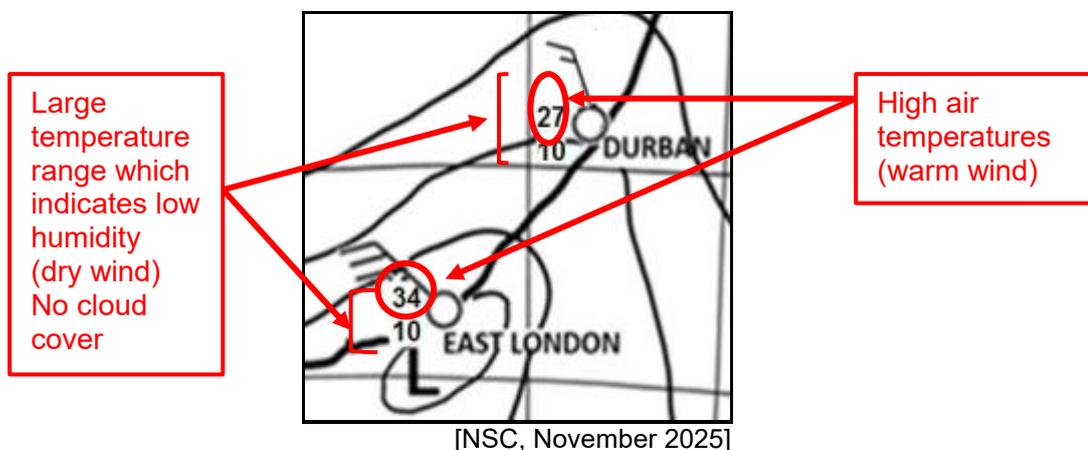
Q1.4.5 was an 'explain why' question which required a factor and qualifier. This question refers to an explanation with a reason for the change in atmospheric conditions when a tropical cyclone moves from the land back over the ocean and intensifies (becomes more developed). Satellite images C and D had to be studied together to see how Tropical Cyclone Dikeledi changed position from 8 January to 13 January 2025. The fact file also needed to be consulted. Learners must be taught how to interpret satellite photographs.

In this instance, satellite image C below shows the position of Tropical Cyclone Dikeledi to the NE of Madagascar. It is a relatively small system and not intense. No well-developed eye is present. Satellite image D, five days later, shows that Tropical Cyclone Dikeledi is now located to the SW of Madagascar after moving over the land for a period of time. As the system moves over the warm Mozambique channel (refer to the arrow indicating movement) evaporation takes place which results in latent heat being released to provide energy for the system to intensify. A well-developed eye is clearly evident. According to the fact file the pressure has decreased from 996 hPa to 976 hPa due to the warm ocean and upliftment of warm air. Less frictional drag resulted in an increase in wind speed (75 km/h to 150 km/h).



[Adapted from <https://afriwx.co.za/synoptic-charts/>]

- (e) The South African *berg wind* is a travelling disturbance associated with anticyclonic circulation. A synoptic weather map was used to show berg wind conditions at East London and Durban represented by the station models below. Q1.5.2 required the interpretation of the station models to provide evidence of berg winds.



When teachers cover this section of work, it is important to explain why these winds are both warm and dry, as was asked in Q1.5.3. As the air mass moves down the escarpment from the plateau to the coast it heats up adiabatically at a fixed rate of 1 °C per 100 m. As the descending air mass heats, up any remaining moisture will be evaporated which accounts for the air mass being dry.

## QUESTION 2: GEOMORPHOLOGY

### Common errors and misconceptions

- (a) Candidates experienced challenges with some of the multiple-choice questions testing the processes associated with *river capture* in Q2.2 (7 marks). Q2.2.6 and Q2.2.7 focused on changes to river X and the captor stream after river capture.
- (b) Q2.3 (15 marks) on *longitudinal profiles* was not answered well by many candidates. Defining concepts continues to be problematic as candidates do not give full responses as in Q2.3.1 (2 marks). Understanding the concept of a graded longitudinal profile was a challenge in Q2.3.2 (1 mark) and providing evidence from the sketch to support the response in Q2.3.3 (2 marks) was done well. Many candidates did not consult the mark allocation which required two pieces of evidence; many candidates gave only one.

In Q2.3.4 (2 marks) candidates could not correctly classify the *temporary base levels of erosion* in sketch A as natural or human made. Q2.3.5 (2 marks) referred to the *permanent base level of erosion* which is the sea. This is often asked as a definition but in this instance, candidates had to say why it is considered one. They struggled to unpack the definition to reach the correct response.

The action verb 'differentiate' proved to be problematic in Q2.3.6 (2 marks) as candidates found it difficult to differentiate between the shapes of the cross-profiles. No marks could be awarded for a partial answer due to the action verb used. When asked to differentiate, a comparison must be given. Although in Q2.3.7 (4 marks) candidates could identify the different processes which resulted in the different shapes of the cross-profiles, many were not specific about the *type of erosion* that occurred and could not be awarded full marks.

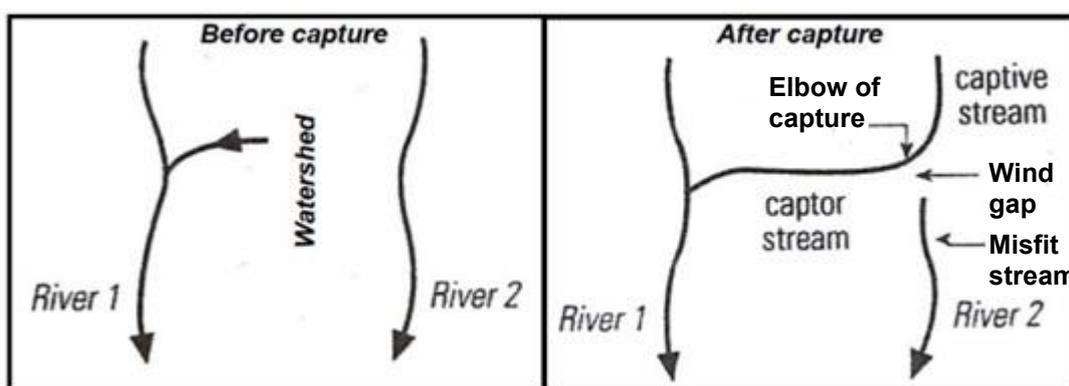
- (c) Q2.4 (15 marks) on *meanders and river rejuvenation* was the question with the worst performance with an average of 32% as most candidates struggled to make the link between meanders and river rejuvenation resulting in incised meanders. Candidates also had difficulty linking each photograph with the cross-section of the meander below. These cross-sections indicated cross-profile and the depth of each bank of the meander which should have assisted the candidate to answer Q2.4.3 (4 marks). The paragraph question Q2.4.4 (8 marks) on the formation of an oxbow lake was poorly answered by many candidates indicating that they struggled to explain how a meander can eventually form an oxbow lake. Understanding of the process was poor.
- (d) With regard to Q2.5 (15 marks), candidates fared well and attained an average of 69%. Candidates were required to read an extract based on catchment and river management and use the photograph showing a polluted river running through an informal settlement to respond to the questions asked.

In Q2.5.1(1 mark) many candidates could not make the connection between the settlement and pollution of the river. Candidates struggled to find two reasons from the photograph to support their response to the previous question in Q2.5.2 (2 marks).

In Q2.5.3 many candidates could not make the link between the impact of the rising water levels on the houses and their location. Q2.5.4 (4 marks) required candidates to refer to the impact of poor river management on the river health, yet many candidates referred to the impact on humans instead. Q2.5.5 (6 marks) was well-answered as candidates were familiar with suggesting strategies to overcome the issue of polluted rivers.

### Suggestions for improvement

- (a) Q2.2 tested the concept of *river capture*. Sketch A (before river capture) and sketch B (after river capture) were provided. Teachers are reminded to teach not only the various features associated with river capture, but also the processes that take place during and after river capture with special attention to the captor river and the captured stream which results in a misfit stream. Learners should also be able to draw simple labelled sketches related to river capture, as illustrated below.



[Source: <https://graemecollege.co.za/wp-content/uploads/2025>]

Q2.2.6 tested why river X had more erosive power after river capture. This is as a result of a greater volume of water now flowing in the river which causes turbulent flow.

Q2.2.7 was a complex multiple-choice question which required a selection of two responses for the final answer. Candidates needed to understand what the physical (natural) impact of river capture is to answer the question. In this instance the question

asked for the physical (natural) impact on the captor stream: river rejuvenation takes place resulting in faster water flow. Learners need to be able to identify the distractors to select the correct options. Complex multiple-choice questions should be included in informal class tasks, tests and examinations so that learners are adequately prepared.

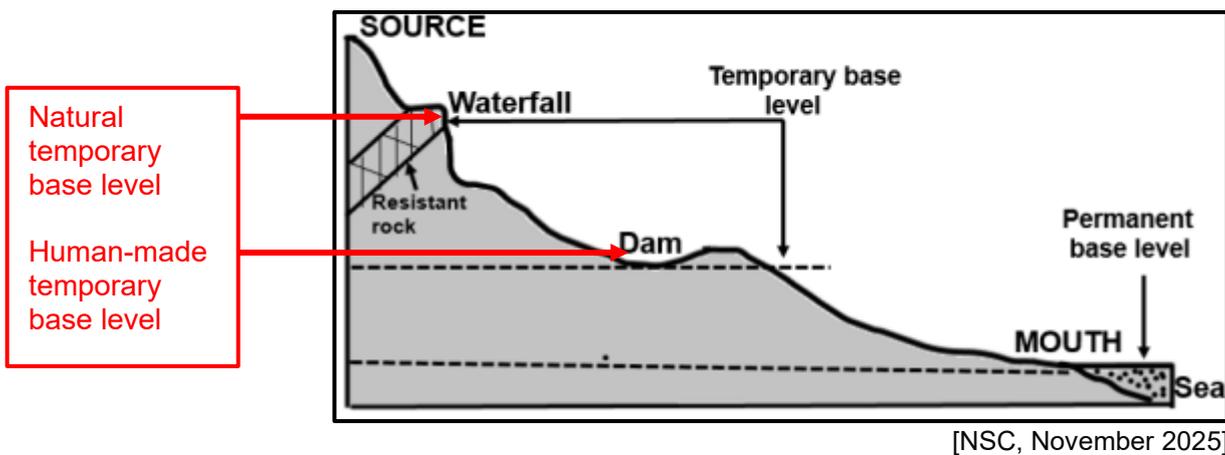
- (b) In Geomorphology, longitudinal and cross-profiles of a river can be tested in a variety of ways. They can also be combined with topics such as stages/courses of a river, base levels of erosion and erosion and depositional processes. Learners need to be able to define, describe and even draw these profiles. When a definition is tested (Q2.3.1) learners should provide a full definition to be awarded 2 marks. A longitudinal profile is a side view of a river from source to mouth.

Q2.3.2 required candidates to identify which of the two longitudinal profiles, A or B, is a graded profile. **Sketch B** is a graded river profile. It has a smooth, concave shape. Erosion and deposition are in equilibrium, resulting in a steep upper section and a gentle lower section with no major obstructions like waterfalls or rapids, where the river efficiently transports its sediment load from source to mouth.

**Sketch A** is ungraded and can be referred to as a **multi-concave profile**. It is an uneven profile that contains multiple segments of concavity interrupted by irregularities like knickpoints (waterfalls, rapids), lakes, or changes in rock resistance. It is regarded as ungraded.

Teachers should remind learners to always consult the mark allocation for each question. For example, in Q2.3.3 the mark allocation was (2 x 1) which requires two responses, which was missed by many candidates. The skill of how to identify a graded vs an ungraded profile must be taught using sketches like those in the NSC November 2025 Paper 1.

*Base levels of erosion* were tested in Q2.3.4 and Q2.3.5. Temporary base levels of erosion can either be classified as human-made or natural. Typical temporary base levels of erosion are: lake (natural), waterfall (natural), rapid (natural) while a dam is a human-made example. A dam is most easily identified by the dam wall which is built across a river to hold water back for storage purposes. In Q2.3.5 the sea is the permanent base level of erosion which is the lowest level to which a river can erode.



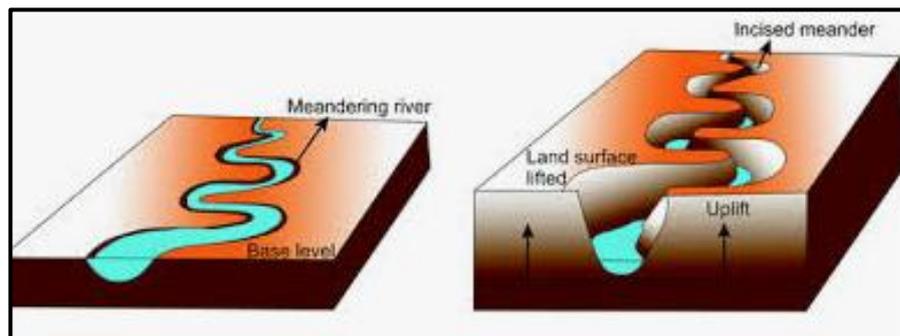
In Q2.3.6 the action verb 'differentiate' was used. This word means to recognise or show the differences that make one thing distinct from another. This can only be undertaken by closely examining the two components in question and determining how they differ from each other. The shape of cross-profiles C (narrow V-shape) and D (shallow wide U-shape) which are indicated on the longitudinal profiles was tested.

Teachers should remind learners that they can only get the 2 marks if both components are mentioned. This instruction should be applied when marking internal tests and examinations to train learners.

Q2.3.7: The processes of erosion and deposition are important in longitudinal and cross-profiles as they account for the ultimate shape of the profile. In the upper course, associated with a steep V-shaped valley, there is downward or vertical erosion. In the lower course associated with the wide U-shaped valley there is lateral erosion and deposition. Teachers must remind learners to specify what type of erosion is taking place.

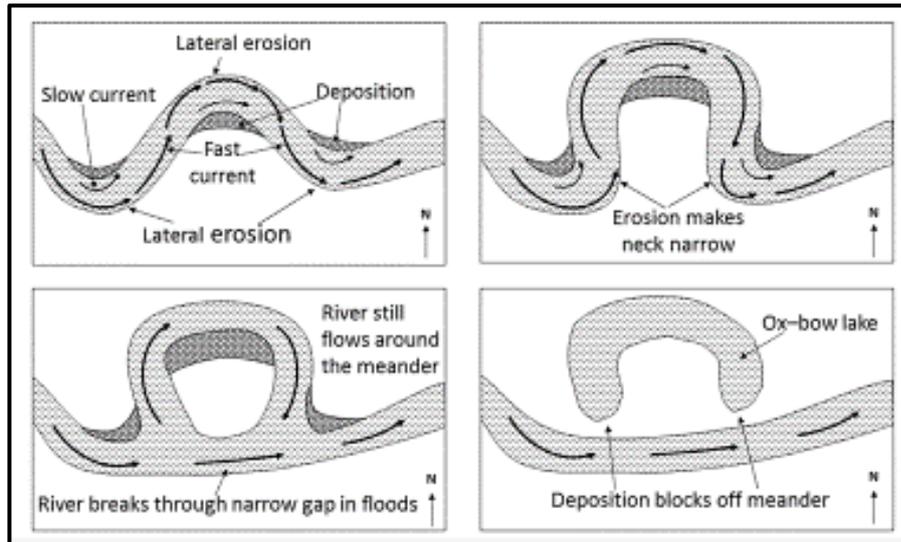
- (c) *Meanders* and *river rejuvenation* were linked in Q2.4. Teachers need to prepare learners for questions like these which deal with two different but linked concepts. The link came in Q2.4.3 with the formation of incised meanders due to river rejuvenation taking place. The photograph and cross-section E-F were given to assist candidates to see how the meander had deepened due to vertical erosion which resulted in it becoming incised.

Incised meanders form when a meandering river, once eroding sideways on a flat floodplain, experiences rejuvenation (due to a rise in land or drop in sea-level), increasing its downward (vertical) erosion, cutting deeply into its own meanders and the underlying bedrock, preserving the winding pattern but trapping it in a steep-sided valley. Essentially, the river cuts down faster than it can cut sideways, creating deep, incised loops as is seen in the sketches on the following page.



[Source: <https://link.springer.com/chapter/10>.]

Q2.4.4 (paragraph question) required an explanation of how an *oxbow lake* is formed. A full explanation of the processes that changed a meander to a meander loop, which resulted in an oxbow lake forming, was required. Meanders are often tested in both theory and mapwork. Learners must be able to explain lateral erosion (outer bank) and deposition (inner bank) and how this results in the meander neck narrowing. When the river floods the neck of the meander is cut through, resulting in the river running straight. The meander loop is then separated from the main stream due to deposition. The meander loop then becomes an oxbow lake when filled with water.

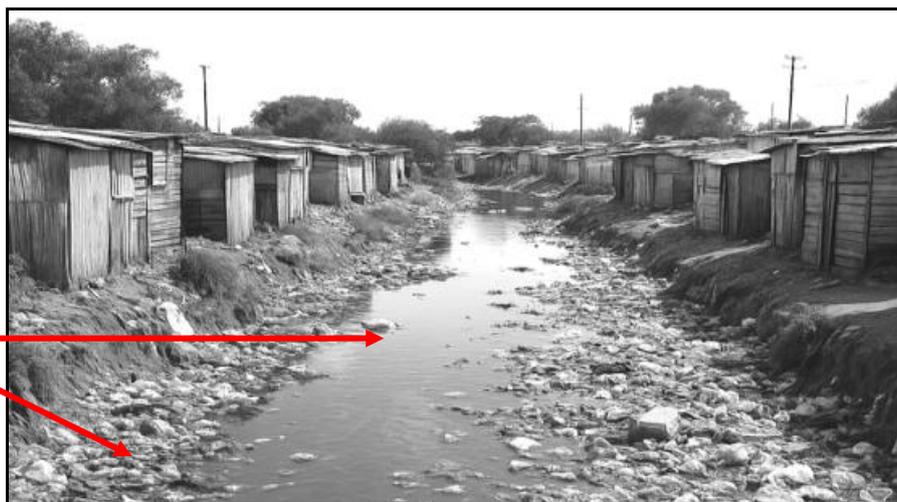


[Source: <https://timeforgeography.co.uk/>]

Teachers need to expose their learners to all eight of the *fluvial landforms/features* mentioned in the *2021 Examination Guidelines* and not just the commonly asked meander and waterfall. According to the *2021 Examination Guidelines*, page 8, learners must be able to identify, describe, explain the processes of the formation, and know the significance and impact of these fluvial landforms/features. The use of photographs, videos, *Google Earth* searches as well as sketches of these landforms/features is vital to assist learners in identifying and understanding how they form. Teachers should also cover the plan views and cross-sectional views in teaching and learning to expose learners to the various views that could be tested. It is also suggested that learners draw labelled sketches of these features in their books (as illustrated above) as they could be asked to draw these features in an examination.

- (d) *Catchment and river management* (Q2.5) is an important section in Geomorphology and can be taught and tested using local case studies and photographs to make it more relevant to the learners. Learners are encouraged to read through the extract and examine photographs in order to obtain responses to questions. In Q2.5.1 responses were required from the extract and not the photograph in this instance. There is a correlation between poor communities and lack of service provision as people are unable to pay, which results in the dumping of waste directly into the river instead.

The photograph below, from the NSC November 2025 paper, had to be used to answer Q2.5.2 as two pieces of evidence were required to support the fact that this settlement is associated with pollution.



Evidence of solid waste (paper, plastic, etc. piled up in the river

Lack of any waste removal infrastructure- no bins visible

No potable water - no taps visible

[NSC, November 2025]

Responding to Q2.5.3 required an understanding that houses that are located on the edge (banks) of the river are at risk of being flooded when it rains, and the water levels rise. The riverbanks are compromised as they can become very wet and could collapse, causing the houses to end up in the river. Over time the riverbanks retreat closer to the houses. Q2.5.4 focussed on the river health and not on humans which increased the cognitive demand. As pollution increases, so water quality is reduced. This impacts on aquatic life, destroys habitats, breaks down food chains, ecosystems are disrupted and biodiversity decreases. Teachers should cover both impact on humans and aquatic fauna and flora in teaching and learning.

Q2.5.5 asked for sustainable strategies that the municipality can implement like education programmes, awareness campaigns, creating buffer zones, regular monitoring and imposing fines to name a few. Teachers should alert learners to the fact that the local community, local municipality and government have different capacities to implement certain strategies, and their responses should be tailored to accommodate this.

## SECTION B

### QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

#### Common errors and misconceptions

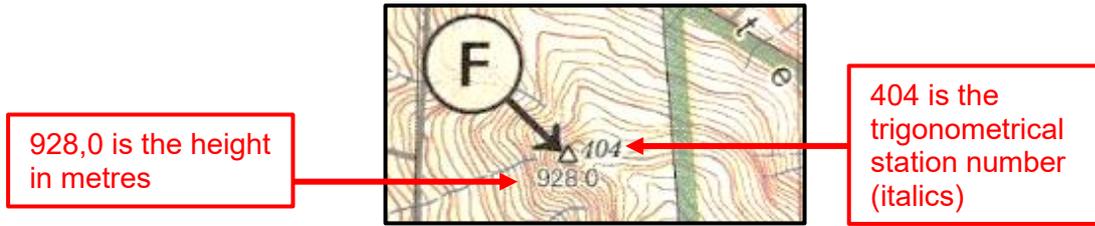
- (a) A number of candidates did not show the calculations, as is required in instruction 16, or indicate the correct unit of measurement in the final answer (instruction 10) and could not be awarded full marks in Q3.1.1 (2 marks). A large number of candidates incorrectly used the trigonometrical station number instead of the height of the trigonometrical station.
- (b) In Q3.1.2 (1 mark) many candidates could not differentiate between a *natural and human-made feature* that was located at a specific set of coordinates on the topographical map. There was also a natural distractor that many candidates selected as the term 'saddle' might have been unfamiliar to them.
- (c) The calculation of *average gradient* in Q3.1.3 (4 marks) proved to be challenging to many candidates despite one of the values being given. Inaccuracy in measurement, use of the incorrect scale to convert the measurement and inability to substitute correctly resulted in candidates losing marks.

- (d) Q3.1.4 (1 mark) required candidates to use their answer from the average gradient calculation to select one of two sketches that matched the average gradient calculated. Many candidates were not able to relate their response to select the correct sketch.
- (e) The concept *intervisibility* was tested in Q3.1.5 (1 mark) and Q3.1.6 (1 mark). While most candidates were able to respond correctly to Q3.1.5, many could not apply the concept to provide a reason from the topographical map.
- (f) In Q3.2.1 (1 mark) a significant number of candidates did not read the general information on Stellenbosch in which the answer was given.
- (g) Q3.2.2 (1 mark) was not well-answered as some candidates did not understand the term 'seasonal rainfall'.
- (h) The concept of *rural vs urban temperatures* was tested in Q3.2.3 (2 marks) with specific reference to area 8 on the orthophoto map. Many candidates did not respond from the perspective of area 8 and as such could not be awarded marks. This question was an 'explain why' question which required a factor and a qualifier in the response and was considered a higher-order question.
- (i) Q3.2.4 (1 mark) and Q3.2.5 (2 marks) tested *general wind direction* in the area around J on the topographical map. A significant number of candidates gave katabatic wind as a response to Q3.2.4, which is not a wind direction. Many struggled to use the row of trees at J to provide a reason in Q3.2.5.
- (j) In Q3.2.6 (2 marks) a number of candidates merely defined the term *watershed* instead of giving evidence from the map to support that it is a watershed.
- (k) Although most candidates selected the correct course of the river where rapids form in Q3.2.7 (1 mark), many could not apply their knowledge of characteristics of the upper course of a river to be awarded marks in Q3.2.8 (2 marks).
- (l) In Q3.3.3 (2 marks) most candidates did not score marks as they did not understand the concept *data manipulation* and how to apply it to the scale of the orthophoto map.
- (m) While most candidates correctly selected the term *resolution* in Q3.3.4 (1 mark), many were not able to apply it to Q3.3.5 (1 mark) and Q3.3.6 (2 marks). A significant number of candidates could not link resolution and how fewer pixels impacted on the clarity of a photographs A and B in the question paper.

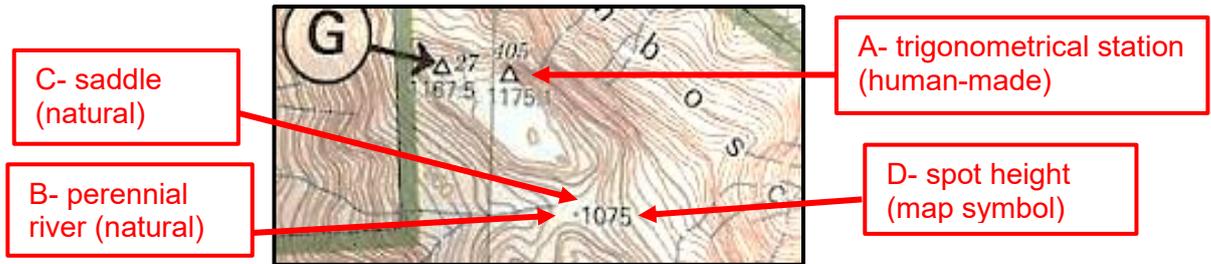
### Suggestions for improvement

- (a) Learners should be reminded that they cannot be awarded full marks for calculations unless they show all the steps and include the correct unit of measurement in their final answer. Teachers are encouraged to mark in the same way for tests and examinations, so that learners get into the habit of using this method. When using trigonometrical stations as reference points for calculations, learners must not get confused with the trigonometrical station number and the height of the trigonometrical station. Refer to the extract of the topographical map of Stellenbosch showing feature F.

## Geography



- (b) The correct response to Q3.1.2 is a saddle which is natural feature. All four are closely located so learners need to determine the coordinates accurately.



A *saddle* is the low point or dip between two higher peaks or hills, resembling the shape of a horse's saddle, as is seen in the above extract from the topographical map of Stellenbosch.

- (c) Teachers should regularly practise calculations like average gradient which was tested in Q3.1.4. Care must be taken to measure the map distances accurately as well as to convert them using the correct map scale: 1 : 50 000 for the topographical map and 1 : 10 000 for the orthophoto map. Correct substitution of values is also important. While there is no unit of measurement required in the final answer for average gradient, the answer must be converted into a ratio.

It is important to note that, while teachers are encouraged to follow the mark allocation for steps in all calculations as mentioned on page 20 in the *2021 Examination Guidelines*, due to limited marks being set aside for calculations (10 marks), some measurements might be given. In this instance the VI = 60 m was given.

Formula: **Vertical Interval (VI)**  
**Horizontal Equivalent (HE)**

Correct measurement of horizontal equivalent

Given: vertical interval

$VI = 60 \text{ m}$   
 $HE = 3,8 (1) \text{ cm} \times 100 = 380 (1) \text{ m}$ 
Range: (3,7 cm – 3,9 cm)  
Range: (370 m – 390 m)

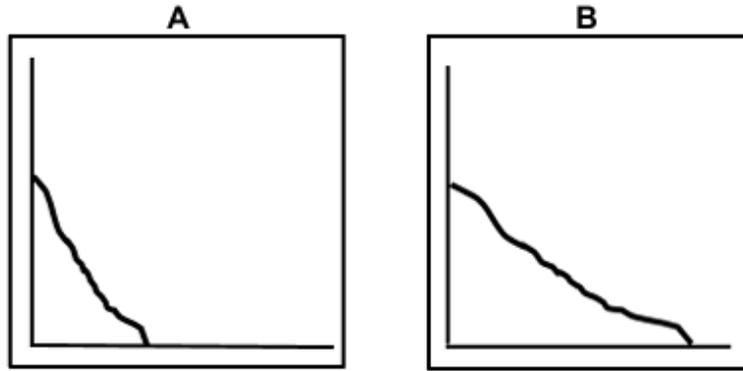
Correct substitution of VI value  
HE value

Orthophoto map scale

Final answer must be expressed as a ratio

$\frac{60}{380} (1)$  (correct substitution)  
 $1 : 6,33 (1)$  Range: (1:6,16 – 1:6,50)

- (d) Q 3.1.4 required interpretation of the average gradient calculation final answer to match sketch A or B below. The ratio 1 : 6,33 means that for every 1 unit vertically, you cover 6,33 units horizontally. This ratio is considered to be fairly steep and as such sketch A is the correct response.



[Source: NSC, November 2025]

- (e) *Intervisibility* is a concept that is regularly tested in *map skills and calculations*. To determine intervisibility in Q 3.1.5 a thorough examination of the contour values from L in block C2 to H in block C4 on the topographical map is required in order to determine if there is an obstruction blocking the line of sight (visibility) between the two points. The area around F at a height of 928,0 m forms an obstruction between L and H, therefore there is no intervisibility.



[ Source: NSC topographical map]

- (f) The answer to Q3.2.1 regarding the *type of climate* experienced by Stellenbosch came from the general information about Stellenbosch on page 16 of the question paper. Teachers should encourage learners to read through the general information before commencing Section B as it provides valuable additional information to the area being tested in Mapwork.
- (g) The general information clearly states that Stellenbosch has a Mediterranean climate characterised by warm dry summers and cold wet winters which supports seasonal rainfall. In block A5 on the topographical map the following evidence is found to support this statement required to answer Q3.2.2: a number of areas of perennial waters (dams), reservoirs and non-perennial rivers. Provision needs to be made to store water for the drier summer season in the Western Cape.
- (h) Learners should be exposed to applying their theoretical knowledge of *micro-climates* in mapwork. Q3.2.3 required candidates to explain why lower temperatures are experienced at area 8 compared to the surrounding built-up area on the orthophoto map. Jan Marais Nature Reserve (area 8) was compared with the surrounding built-up area. Temperatures at 8 are lower due to the area consisting of natural vegetation which encourages evapotranspiration and lowers temperatures, fewer human-made

features visible to absorb heat and fewer human activities to generate heat. Note that only responses from the perspective of area 8 were accepted.

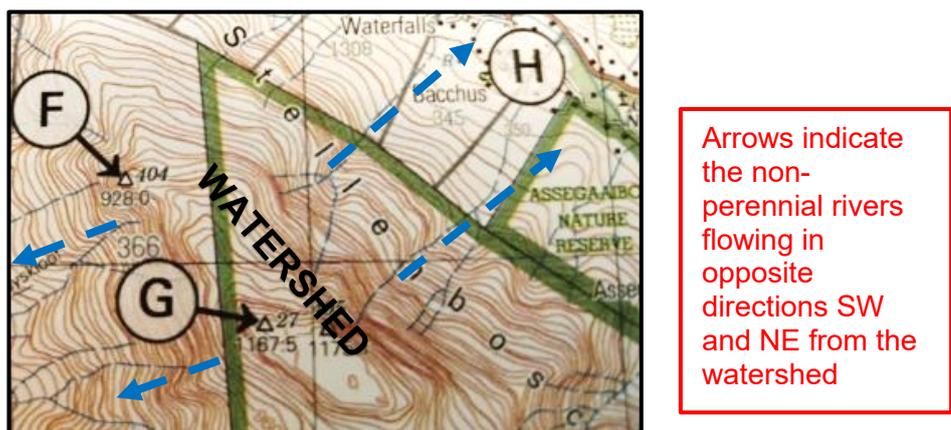
- (i) Q 3.2.4 and 3.2.5 used the example of a row of trees (J) on the topographical map to determine the *predominant wind direction*. When referring to wind direction compass points are always used to describe the wind.



The general wind direction required in Q3.2.4 was north, north-west, north-east (i.e. the wind originates in the north and blows southwards or moves north to south). Wind direction is always given from where the wind originates. Teachers must ensure that learners understand this principle and know how to apply it.

The row of trees (J) in block E3 lies west to east (perpendicular to the wind) and is called a *wind break*. Learners are taught that farmers plant rows of trees around their cultivated lands or orchards and vineyards to protect them from the effects of the prevailing wind.

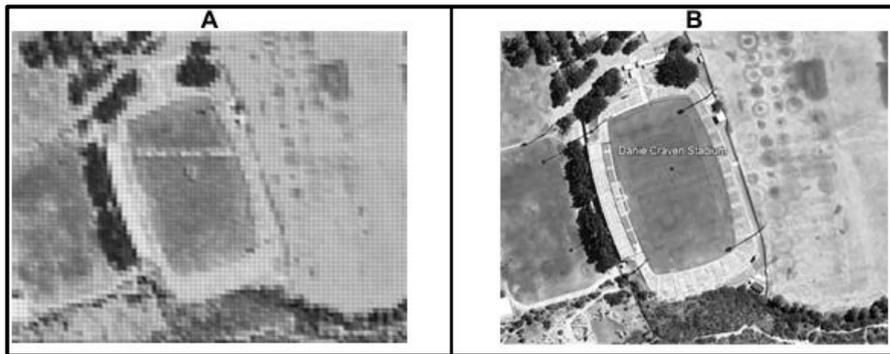
- (j) Q3.2.6 stated that Stellenboschberg is a *watershed* and the question asked for evidence from the topographical map to support the statement. A watershed is a high-lying area separating two or more river systems or drainage basins.



- (k) Q3.2.7 and Q3.2.8 tested the application of theoretical knowledge of the upper course of the river with respect to rapids. The photograph of *rapids* assisted the candidates to identify characteristics of the upper course: turbulent flow, uneven riverbed, steep gradient and high velocity. When teaching fluvial landforms/features as well as

drainage patterns, teachers should always show learners how these features are indicated on a topographical map.

- (l) Teachers need to cover all *GIS concepts* and provide as many examples as possible to ensure learners understand the various processes that take place. The concept of *data manipulation* with regard to scale was tested. Manipulating the scale by making it larger would improve the clarity of the feature at area 9 on the orthophoto map as was asked in Q3.3.3.
- (m) In GIS, *resolution* refers to the level of detail in geographic data, most commonly spatial resolution for raster (image) data, defined by the size and number of pixels. High resolution means more small pixels (more detail and improved clarity), while low resolution means fewer (less) large pixels (less detail and less clarity).



[Source: NSC, November 2025]

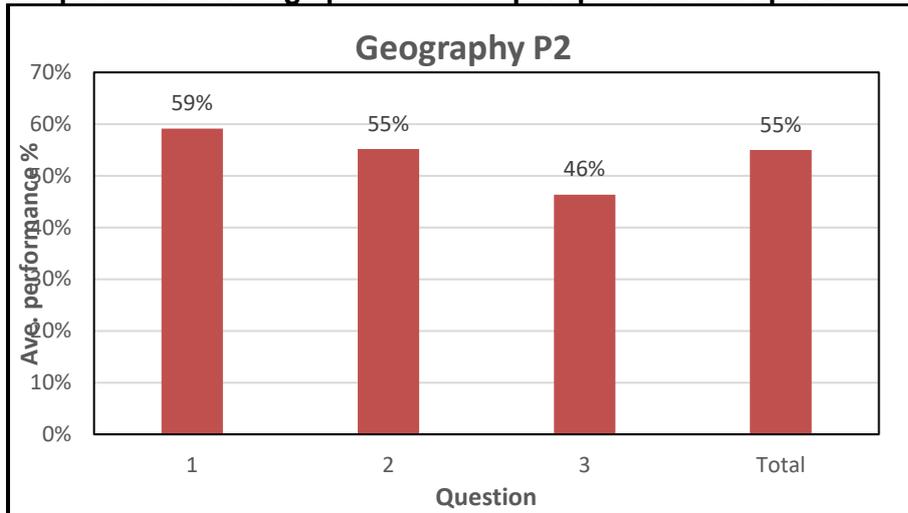
Photograph A has fewer pixels compared to photograph B. The fewer the number of pixels, the less detail can be seen. The image is not as clear and is blurred and distorted. Features are not sharp. Teachers should use photographs like the above to teach this concept.

- (n) Teachers should take time when teaching map skills to highlight not only the information found on the topographical and orthophoto maps but also show the *value* of the information around the map. The different contour interval values for each map are indicated as well as the map number, coordinates and magnetic declination information pertinent to the particular topographical map. Learners are encouraged to use their reading time to examine the maps thoroughly before answering the questions.

## 6.5 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

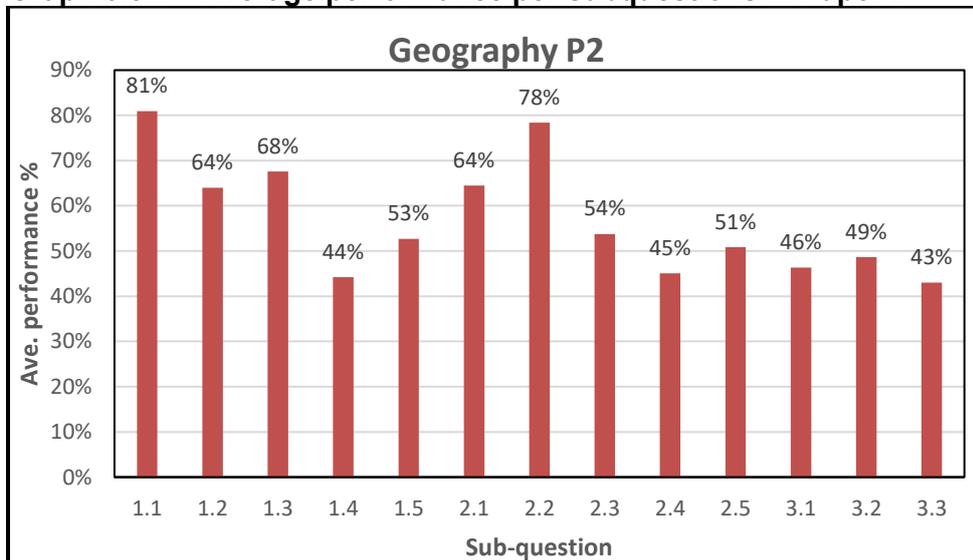
The graph below is based on data from a random sample of 100 candidates' scripts per province. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

**Graph 6.5.1 Average performance per question in Paper 2**



Q	Topics
1	Rural and urban Settlements
2	Economic Geography of South Africa
3	Geographical skills and Techniques

**Graph 6.5.2 Average performance per subquestions in Paper 2**



Sub-Q	Topics	Sub-Q	Topics	Sub-Q	Topics
1.1	Settlement terminology	2.1	Sugar cane/Gold mining	3.1	Map skills and calculations
1.2	Classification of settlements	2.2	Economic Terminology	3.2	Map Interpretation
1.3	Rural depopulation/Land restitution	2.3	Food security/Small/ large-scale farming	3.3	Geographical Information Systems (GIS)
1.4	Land-use zones	2.4	Dube Trade Port IDZ		
1.5	Urban blight	2.5	Informal sector		

## 6.6 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 2

### SECTION A

#### QUESTION 1: RURAL AND URBAN SETTLEMENTS

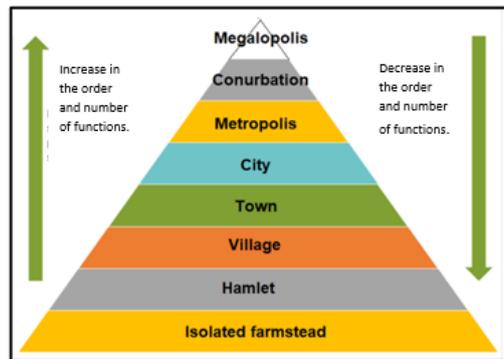
##### Common errors and misconceptions

- (a) Candidates did not understand that *classification of settlements* is based on number of functions in Q1.1.1 (1 mark).
- (b) In Q1.2.1 and Q1.2.2 (2 marks) candidates had challenges in applying the information to the source, possibly due to not having a proper understanding of the different types of *trade and transport towns* in Q1.2.1 and differentiating between urban settlements, e.g. Classification of urban settlements.
- (c) In Q1.2.3 (1 mark) candidates were not able to relate different concepts (e.g. low order goods and services to a town).
- (d) In Q1.2.5 (1 mark) a significant number of candidates could not differentiate between concepts of *urban growth* and *urban sprawl*.
- (e) With regard to Q1.2.6 (1 mark) the challenge was interpreting the cartoon. Candidates seemed to interpret the cartoon literally and guess answers. In some instances they did not apply the key to the cartoon.
- (f) In Q1.2.7 (1 mark) some candidates could not differentiate between *urbanisation* and *urban growth*.
- (g) In Q1.3.3 (4 marks) some candidates gave impacts that were not social, even though the instructional verb focused on social impact. Some candidates repeated examples of the same response, e.g. facilities/services and could only be allocated 2 marks.
- (h) In Q1.3.5 (1 mark), although the response was in the extract, poor comprehension skills created a challenge to identify it. Some candidates did not have the knowledge of the different options of land restitution.
- (i) In Q1.4.1 (2 marks) some candidates could not differentiate between the concepts of *land-use zone* and *land use*.
- (j) In Q1.4.2 (2 marks) candidates did not focus on the part of the question with reference to 'mainly found'.
- (k) Q1.4.3a (2 marks): Some learners gave general characteristics and not characteristics of a high-income area as depicted in the photograph.
- (l) In Q1.4.4 (4 marks) candidates misinterpreted the question which focused on the *economic reasons* why the heavy industry is located on the outskirts of the urban area. Candidates incorrectly gave responses of why it should not be in the centre of the urban area, e.g. creates pollution and causes health problems. In some instances, candidates gave social, and not economic reasons.
- (m) In Q1.4.5 (4 marks) some candidates could not differentiate between the characteristics of each land use. Moreover, they did not interpret the source correctly: it related the photographs to an urban profile, clearly indicating the location of land use illustrated by B2 and A.
- (n) In Q1.5.2 (2 marks) some candidates did not have a clear understanding of what *urban blight* is and what causes it. Instead, they gave outcomes of the causes and not the causes, e.g. illegal electrical connections instead of lack of electricity (poor service delivery).

- (o) In Q1.5.3 (4 marks) some candidates wrote about the government, but the question focused on the municipality.
- (p) Q1.5.4 (8 marks) candidates did not understand the concept of *urban renewal*. They did not identify the specific demand of the question, which focused on the economy and gave responses on focusing on the positive social impact.

**Suggestions for improvement**

- (a) Q1.1.1. The hierarchy of settlements could be used to emphasise the relationship between function and settlement as shown in the illustration below. The settlements higher up in the hierarchy will have more higher-order functions and a larger number of functions.



[Adapted from <https://www.internetgeography.net/topics/what-is-a-settlement-hierarchy/#>]

- (b) Q1.2.1 and Q1.2.2: illustrating the *classification of urban settlements* according to function using visual material gives learners a better understanding and they are able to comprehend the differences.

		
Break-in-bulk point is a place where goods are transferred from one mode of transport to another, for example the docks where goods transfer from ship to truck. e.g. Durban	Gateway/gap towns it develops around a gap in a physical feature like a mountain e.g. Harrismith	Specialised towns these towns develop due to one main function e.g. Umhlanga Rocks

[Source: <https://www.youtube.com/watch?v=D9JXb0CMbg&list=PLLTtun7pIblwMiKLHSbR1>]

- (c) Q1.2.3. Learners could also use the sketch, illustrated in (a) above, to determine the *order of goods and services* for each settlement, e.g. a town will have lower order goods and services compared to a city.
- (d) Q1.2.5. Giving learners a list of terms/concepts relating to a section explaining the differences between the terms and concepts can give the learners a clearer understanding. Emphasising the important words is an effective teaching method as is evident below.

*Rate of urbanisation* refers to the pace (speed) at which urbanisation is occurring.

*Urban growth* refers to the increase in the number of people living in urban areas.

*Urban sprawl* refers to the formless expansion of an urban area.

*Level of urbanisation* refers to the percentage of the number of people living in urban areas.

- (e) Q1.2.6. Analysing the cartoon using the key is vital; from this it can be noted that buildings are eating the trees, indicating that the urban area is expanding. A process of elimination can be implemented if the candidate understands the concepts.

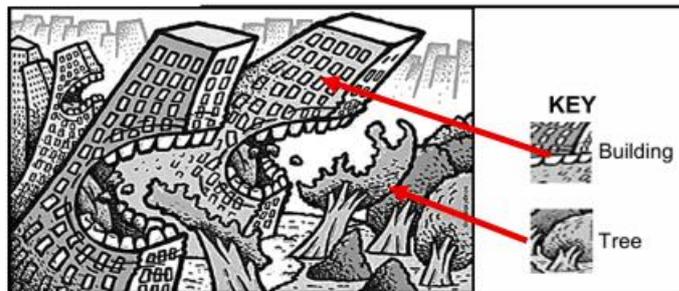
*Urban blight* – is the deterioration and decay of buildings and infrastructure in urban areas.

*Urban renewal* – The large-scale re-development of areas in an urban area.

*Counter-urbanisation* – The movement of people from urban areas to rural areas.

*Urban expansion* – The physical expansion of an urban area.

From the understanding of the different concepts, it can be clearly seen that the cartoon illustrates urban expansion. The buildings in the cartoon appear to be eating the trees as they take over the area.



[Source: <https://www.cartoonmovement.com/collection/>]

- (f) Q1.2.7. Learners need to focus on the words 'percentage' and 'number' to highlight the difference between urbanisation and urban growth as illustrated below.

*Urbanisation* is the increasing percentage of people living in urban areas.

*Urban growth* is the increase in the number of people living in urban areas.

- (g) The following points will assist teachers with challenges regarding Q1.3.3:

Learners need to check whether the impact is *social*, *economic* or *physical*. In this case it is physical.

Learners need to know that they can either give the response or an example of the response.

<p>1.3.3</p> <p>Decrease in employment opportunities (accept examples) (2)</p> <p>Lack of facilities (accept examples) (2)</p> <p>Lack of services (accept examples) (2)</p> <p>Quality of life/ standard of living will deteriorate (accept examples) (2)</p> <p>It will increase poverty (accept examples) (2)</p> <p>Infrastructure will deteriorate (accept examples) (2)</p> <p>Increase in crime/social ills (accept examples) (2)</p> <p>Population imbalance (accept examples) (2)</p> <p>Family ties are broken (accept examples) (2)</p> <p>Less social interaction (2)</p> <p>Loss of community identity (accept examples) (2)</p>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">                 Lack of potable water                  Lack of Electricity             </div> <div style="border: 1px solid black; padding: 5px;">                 Deterioration of roads.                  Deterioration of railway lines.             </div>
---	--

If two examples of the same response are given, candidates will only be credited with two marks instead of four as examples of different responses must be given for full marks.

- (h) Q1.3.5. Learners need to know the different options of land restitution.
  1. Returning the land to its rightful owners
  2. Compensation to people for land forcefully taken away.
- (i) Q1.4.1. Learners need to know the difference between the concepts of a *land-use zone* and *land-use*.

*Land-use zone*: Land that has been zoned for a specific function in an urban settlement, e.g. CBD, Industrial area, residential area etc.

*Land use*: The use of land, e.g. green belt, heavy industrial area, high-income residential area etc.

It must be noted that land that has been zoned for a specific function may have other land uses, e.g. a residential area may have high- and low-income residential areas, commercial areas, industrial areas and greenbelts.

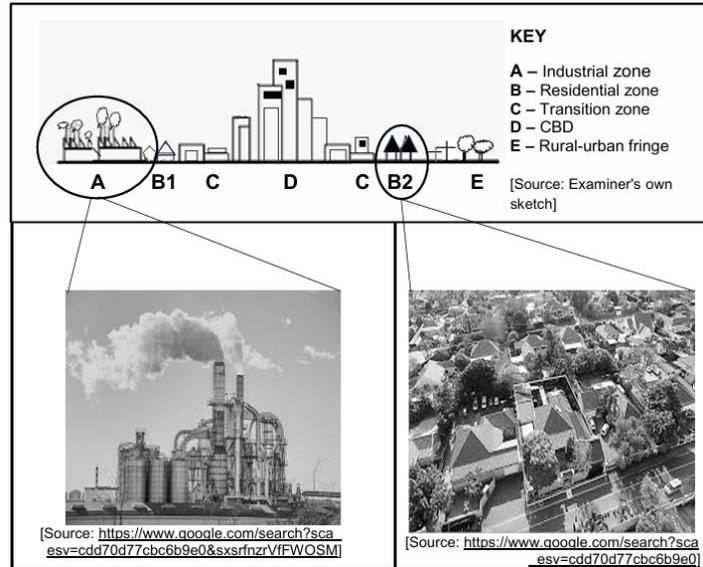
- (j) Q1.4.2. A careful analysis of this question needs to be done. Candidates gave responses to where commercial functions are found, e.g. in the industrial area, but the focus was on mainly found which is the CBD and the transitional zone only.

Name TWO urban land-use zones where commercial functions are mainly found.

Teachers need to emphasise the importance of highlighting key words in questions as shown above

- (k) Q1.4.3(a). The question required evidence from the source and not generic responses. Here the candidate had to focus on the photograph and how it is linked to the urban profile in order to identify the responses as illustrated on the following page.

## Geography



### Refer to B2

- Close to the rural-urban fringe (found on the urban profile)
- Large plots (found on the photograph)
- Low density of buildings/ large houses (found on the photograph)
- Far away from the (heavy) industries (found on the urban profile)

- (l) Q1.4.4. Candidates needed to note that the question is based on economic reasons and not generic reasons, and the focus is on why it is located on the outskirts and not why it is not located in the urban area as is illustrated below.

Explain TWO economic reasons why this land use (answer to QUESTION 1.4.3(b)) is located on the outskirts of the urban area, as indicated in the urban profile.

- Less expensive to combat pollution ✓
- It reduces pollution in the CBD ✗

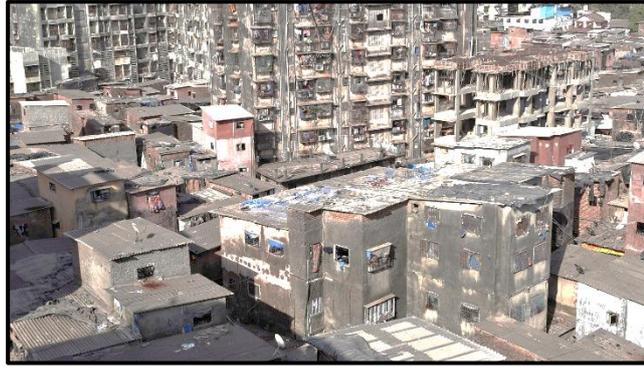
- (n) Q1.4.5. Learners need to know characteristics of land uses which will allow them to differentiate between them. Below are some examples. Candidates would have been able to obtain answers from the source if they did a proper analysis of the source.

- Heavy industrial area**
- Associated with pollution.
  - Associated with traffic congestion.
  - Requires flat land.
  - Requires bulk transport etc.

- High income residential area**
- Aesthetic appeal.
  - Away from heavy industrial area.
  - Large plots
  - Large houses etc.

- (o) Q1.5.2. Learners need to have a clear understanding of what the concept *urban blight* is. Visual material like that seen on the following page could be used.

*Urban blight* – is the deterioration and decay of buildings and infrastructure in urban areas.



[Source: <https://geographyjylu.weebly.com/urban-blight.html>]

The question was based on the causes of urban blight and not on the outcomes of the causes as is illustrated below:

Lack of electricity supply ✓  
Illegal electrical connections X

- (o) Q1.5.3. Learners need to know the difference between *government* and *municipality*. The government is the overarching system that runs a country, whereas the municipality is the local level of government responsible for managing services within a specific town.
- (p) In a paragraph of approximately EIGHT lines, explain the positive impact of urban renewal on the economy of Wynberg.

Q1.5.4. The question above focused on economic, and not social, impact. Using examples, teachers should make learners aware of the correct responses.

**Social**  
Improves health care (social) X

**Economic**  
Attracts more businesses/ investors (economic) ✓

## QUESTION 2: ECONOMIC GEOGRAPHY OF SOUTH AFRICA

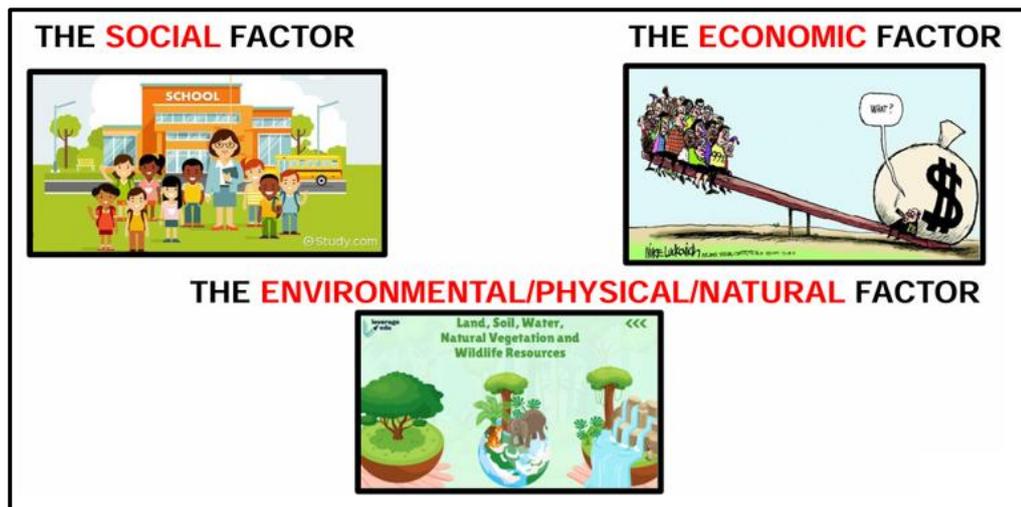
### Common errors and misconceptions

- (a) Regarding Q2.1.1 and Q2.1.2 (2 marks), some candidates experienced difficulty and could not differentiate between *social* and *economic* factors. In some instances, candidates did not seem to be aware that employment can be both a social and economic factor.
- (b) Some candidates experienced challenges analysing the graph in Q2.1.6 (1 mark).
- (c) In Q2.2.2. (1 mark) candidates experienced difficulties in identifying the *primary economic activities* in the table and just gave the percentage of one primary activity, which was mining.
- (d) In Q2.2.6 (1 mark) some candidates did not understand the word *tariff*.
- (e) In Q2.3.1 (2 marks) candidates did not emphasise the important aspects of *food insecurity* and only referred to having enough food.

- (f) In Q2.3.3 (2 marks) some candidates gave characteristics of large-scale farming that were not visible on the photographs.
- (g) Q2.3.5 (8 marks) required factors and qualifiers as this was an 'explain how' question. In some instances, candidates gave the factor and only received part marks and in other instances candidates did not know the difference between *factor* and *qualifier*; they only gave responses with qualifiers and could not be awarded any marks.
- (h) With regard to Q2.4.4 (4 marks) candidates did not seem to grasp the demands and the requirements of the question and gave a vague answer that was found in the extract. They did not relate the automotive plant to the airport and harbour with regard to proximity.
- (i) Q2.4.5 (4 marks) was a higher-order question which required a factor and qualifier. A significant number of candidates did not interpret the question correctly. The question focused on the positive economic impact of a *variety of manufacturing industries* and candidates wrote about a *larger number of industries*. Although the qualifiers were correct, the candidate could not get marks because the factor was incorrect.
- (j) Regarding Q2.5.1 (2 marks) some candidates confused the *informal sector* with *informal settlement* and instead of indicating that they are unregistered they spoke about not having permits. Instead of providing the definition, some candidates gave characteristics, e.g. they sell goods on the road.
- (k) In Q2.5.4 some candidates experienced difficulties interpreting the table and others gave information from the table, e.g. 'December has the largest number of informal traders' instead of accounting for the large number of traders in December.

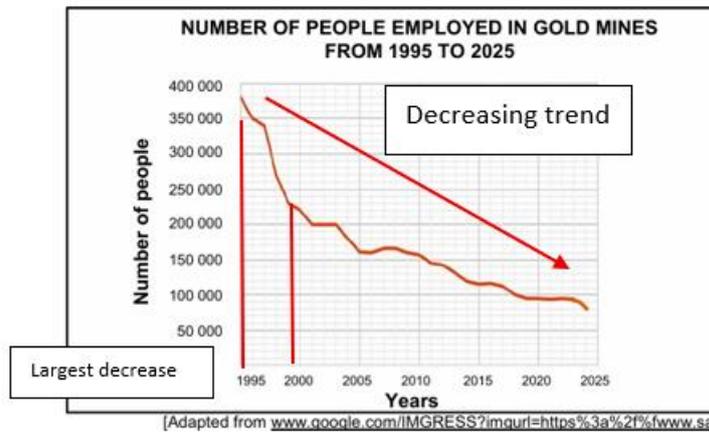
**Suggestions for improvement**

- (a) Q2.1.1 and Q2.1.2 teachers need to make learners aware that employment is both a social and economic factor. Using visual material to illustrate the difference between factors, as shown below, can also create more clarity.



[Source: <https://www.youtube.com/watch?v=sd8c3Ky8K5Q&list=PLLTtun7plbIxBVHORE>]

- (b) Q2.1.6. Proper analysis of graphs needs to be practised as illustrated below:

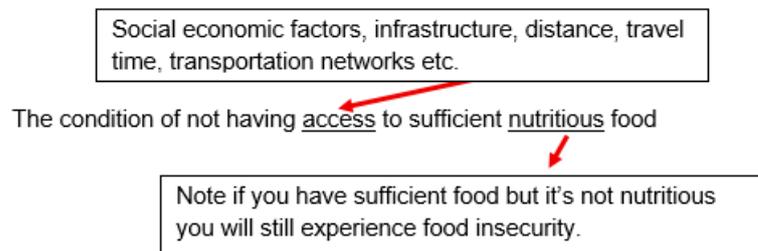


- (c) Q2.2.2. Besides explaining the difference between the economic sectors, learners need to be given examples of the sectors changing over a period of time (Q2.2.3). This can be illustrated using the table:

ECONOMIC ACTIVITY	PERCENTAGE (%) CONTRIBUTION TO THE GDP
Transport (Tertiary)	11
Agriculture (Primary)	2,9
Mining (Primary)	8,4
General government services (Tertiary)	10,6
Electricity and gas (Tertiary)	2,8
Construction (Secondary)	3
Trade, catering and accommodation (Tertiary)	14,7
Manufacturing (Secondary)	15
Finance and real estate (Tertiary)	31,7

[Adapted from <https://intergest.co.za/exploring-south-africas-economic-potential/>]

- (d) Q2.2.6. The concept *trade tariffs* should be explained to learners. A trade tariff is a government-imposed tax or duty on imported goods designed to make foreign products more expensive, thereby protecting domestic industries from foreign competition.
- (e) Q2.3.1. Concepts like food insecurity do not only need to be defined, but learners need to have an understanding of it. This will create clarity regarding the words used in the definition as illustrated below:



- (f) Q2.3.3. Learners need to note that they must make use of the information found in the photograph that illustrates large-scale farming as is explained below.



Large tracts of land are cultivated (2)  
Use of machinery/tractor/technology (2)  
Scientific methods are used (2)  
Use of pesticides (2)

- (g) Q2.3.5 is a higher-order question and requires more interpretation due to the higher demand as illustrated below.

In a paragraph of approximately EIGHT lines, explain how these economic challenges identified in your answer to QUESTION 2.3.4 can have a negative impact on food production.

Lack of machinery (**Factor**) will reduce efficiency/productivity (**Qualifier**) ✓✓  
It will reduce efficiency/productivity (**Qualifier**) X. (No marks if only qualifier is given).

Lack of access to farming equipment/technology will reduce efficiency/productivity X  
(No marks allocated as it explains how lack of access to farming equipment/technology impacted on food production. Candidate repeated the factor and did not state how the factor negatively impacted food production)

- (h) Q2.4.4. This is a good example for teaching and learning as the demand of the question is difficult, as it involves a number of aspects. This is illustrated below:

How did the **proximity** (distance) to the **airport and harbour** favour the **location** of the automotive plants in the **Dube Trade Port** (IDZ)?

In order to respond correctly, a close examination of the proximity of the airport and harbour to the Dube Trade Port is required and it should be explained how it favours the location of automotive plants, e.g. It reduces costs for exports/imports.

- (i) Q2.4.5. This question was pitched as a higher-order difficult question. Highlighting the important words that the candidate needs to focus on can produce positive results.

In this context variety refers to diverse (different types) of industry and not the number of industries as misinterpreted by a significant number of candidates.

Explain how the **variety** of manufacturing industries in the Dube Trade Port (IDZ) would have a positive impact on the **economy** of the province.

Economic responses are required

Different types of industries in one area will attract investors ✓✓  
Larger number of industries in one area will attract investors X

- (j) Clarification is needed on the following aspects in order to improve learner performance in Q2.5.1.

Candidates need to give the full definition, e.g. 'Businesses that are not registered and do not pay income tax'.

A permit is a trading permit that allows individuals to engage in informal trading activities within a municipal area. A permit does not mean that your business is registered with SARS.

Tax is paid by traders in the informal sector via VAT, so the emphasis is on income tax not being paid.

- (k) Q2.5.4. The question had a higher cognitive demand as the candidates had to 'account for', instead of 'stating', the number of informal traders during the month of December. 'Account for' is an instructional verb that requires an explanation of the reasons or causes of a particular phenomenon or statement, in this instance the high number of traders during December.

There is a large number of traders. X  
Holiday season increases shoppers. ✓✓

## SECTION B

### QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

#### Common errors and misconceptions

- (a) In Q3.1.2 (4 marks) candidates did not read the instruction which focused on the orthophoto map and used the topographical map scale. Some candidates did not show all steps; other candidates experienced problems measuring on the map.
- (b) In Q3.1.3 (1 mark) the question focused on comparing the *scale* of the topographical map and orthophoto map. Candidates spoke about the size of the map instead.
- (c) In Q3.1.4 (3 marks) some candidates did not know the *steps in the calculation of magnetic declination*. In this calculation different units were used and therefore units needed to be indicated. In some instances, candidates' calculation was correct, but they did not indicate the unit. Candidates lost marks because they did not give the correct unit in the final answer.

- (d) With regard to Q3.1.5 (1 mark) candidates confused the importance of *magnetic declination* with *magnetic bearing* and gave responses like 'You do not get lost.'
- (e) In Q3.2.1b (1 mark) some candidates did not seem to know how to do *cross-referencing* and instead of 'golf course' gave 'old diggings' and 'school' as a response.
- (f) Regarding Q3.2.2 (2 marks), a higher-order question, candidates had to give a factor and qualifier. Many candidates gave the qualifier, e.g. 'will delay commuters' and did not give the factor related to the grid iron street pattern, e.g. 'many intersections'. This resulted in their receiving no marks.
- (g) In Q3.2.3 (1 mark) candidates did not know the *characteristics associated with land-use zones*, e.g. cemetery with the rural-urban fringe.
- (h) In Q3.2.5 (1 mark) the question required an example of *transport infrastructure*, but candidates gave the mode of transport instead.
- (i) In Q3.2.6 (1 mark) the answer could have been obtained from the general information. However, it is evident that a significant number of candidates did not read the general information.
- (j) Regarding Q3.3.1 (2 marks) some candidates confused *data layering* with *data integration*.
- (k) In Q3.3.2 (1 mark) candidates had very limited knowledge regarding the different data layers and gave responses such as 'water layer', (e.g. dam) instead of 'drainage layer'.
- (l) In Q3.3.4 (2 marks) a significant number of candidates did not understand the concept of *buffering* and experienced challenges in map interpretation.

### Suggestions for improvement

- (a) Q3.1.2. **Candidates need to take note of which map is being referred to.** Refer to the orthophoto map. (1 : 10 000 not 1 : 50 000)

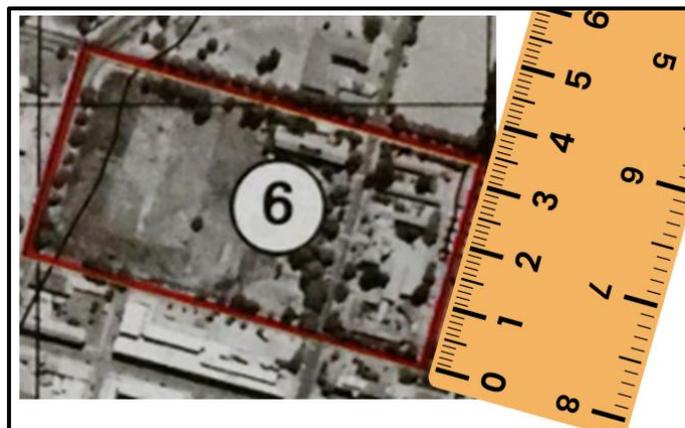
#### Given information

Calculate the area of the demarcated feature 6 in blocks B4, C3 and C4 in m<sup>2</sup>.

Use the following information:

Measured breadth (orthophoto map distance) = 1,8 cm (information is given and does not need to be re-calculated)

#### Correct method of measurement



Points to note when measuring on the map:

Use the mm side of the ruler. This will allow you to work to a decimal of the cm.

Ensure that the 0 mm is at the start of the line.

Convert the mm into cm, e.g. 35 mm is equal to 3,5 cm

**Show all steps of calculation in order to get full marks.**

$$\begin{aligned} \text{Area} &= (3,5(1) \text{ cm} \times 100) (1,8 \text{ cm} \times 100) \\ &= 350(1) \text{ m} \times 180(1) \text{ m} \\ &= 63\,000 \text{ m}^2 (1) \end{aligned}$$

- (b) Q3.1.3. Responses should be focused on the scale, and not the size of the map as illustrated below.

Scale of topographical map is (5x) smaller ✓ (Scale)

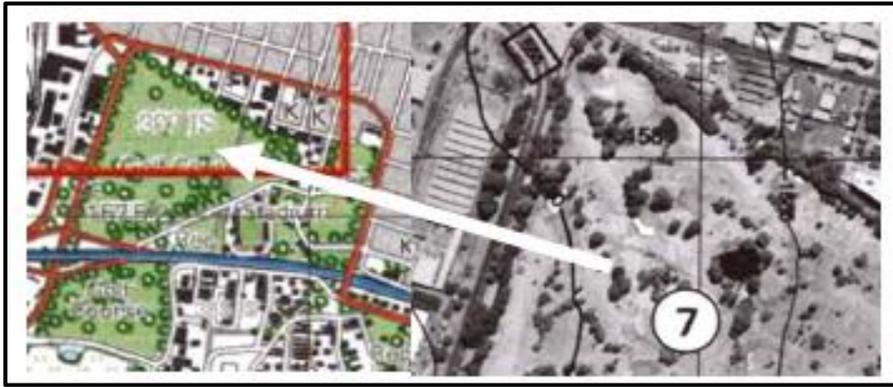
The topographical map is (5x) smaller X (Size)

- (c) Q3.1.4. Learners need to note that they must show the *units in each step* as different units are used in this calculation. All steps must be shown to achieve full marks. The final answer must indicate west of true north and not just west. This is illustrated below.

Total annual change:  $11 \times 5' = 55' (1)$  westwards  
 MD for 2025:  $18^\circ 19' + (1) 55' = 18^\circ 74'$   
 $19^\circ 14'$  west of true north (1)

- (d) Q3.1.5. Learners must note that the importance of calculating magnetic declination is to determine the correct position of the true north; when calculating magnetic bearing it assists with direction, e.g. finding your destination, not getting lost.
- (e) Q3.2.1. When identifying features, cross-referencing is vital, e.g. the feature on the orthophoto may not be named, but when relating it to the topographical map the name of the feature might be more recognisable. In some instances, the symbol may be found on the topographical map and the name indicated in the reference. This is illustrated on the following page.





Place of Worship, **School**, Hotel..... \*K **S** \*H

- (f) Q3.2.2. Learners need to be able to identify street patterns on both the topographical map and the orthophoto map. Identifying characteristics of the street pattern is necessary to answer the significant number of questions found in past papers. This is a higher-order question and requires a factor and qualifier to obtain full marks as is illustrated below.

Grid-iron pattern with many intersections.

Examples of correct and incorrect responses.  
 It has many intersections (factors) which will delay commuters (qualifier) ✓ ✓  
 Will delay commuters (qualifier) X.

- (g) Q3.2.3. Candidates need to know the characteristics associated with the land-use zone, e.g. rural-urban fringe, found on the outskirts of an urban area associated with the location of activities like a cemetery, golf course, airport etc.



- (h) Q3.2.5. Learners need to be made aware that the mode of transport refers to examples like trains, whereas transport infrastructure refers to railway lines.

## Geography

- (i) Q3.2.6. Learners need to be reminded to read the general information as answers could be obtained from it as is illustrated below.

eMalahleni is in a coal mining area. Opencast mining is mainly used to extract coal. This type of mining involves digging near the surface to extract coal seams. There are a number of power stations, as well as a steel mill nearby which all require coal.

- (j) Q3.3.1. Learners need to be able to differentiate between the concepts of *data layering* and *data integration*. It must be noted that data layering is an example of *data integration*. Teachers can make use of visual material to illustrate the different methods of data integration. *Data integration* can be defined as combining sources of information/data layers.

**Crime in South Africa** This data visualization was created in July 2020 and is based on Crime Statistics from the SAPS (South African Police Service). To view the original data source visit: <https://www.saps.gov.za/services/crimestats>

A Pivot Table showing the number of Crimes by Year and by Province and Police Station

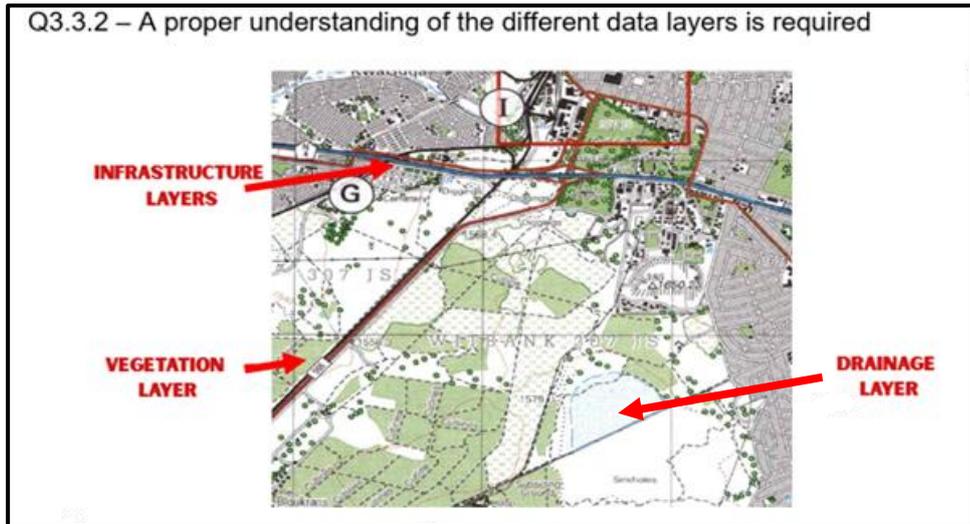
Province	2010	2011	2012
Gauteng	640.1K	609.3K	578K
Western Cape	417.6K	426.9K	447.2K
KwaZulu-Natal	349.1K	343.8K	348.4K
Eastern Cape	216.2K	214.1K	213.6K
Free State	127.5K	122K	126.4K
Limpopo	99.6K	96.5K	113.6K
North West	115.7K	109.9K	111K
Mpumalanga	116K	110.8K	109.4K
Northern Cape	49.7K	45.6K	45.3K
Grand total	2.1M	2.1M	2.1M

Data integration using statistics.

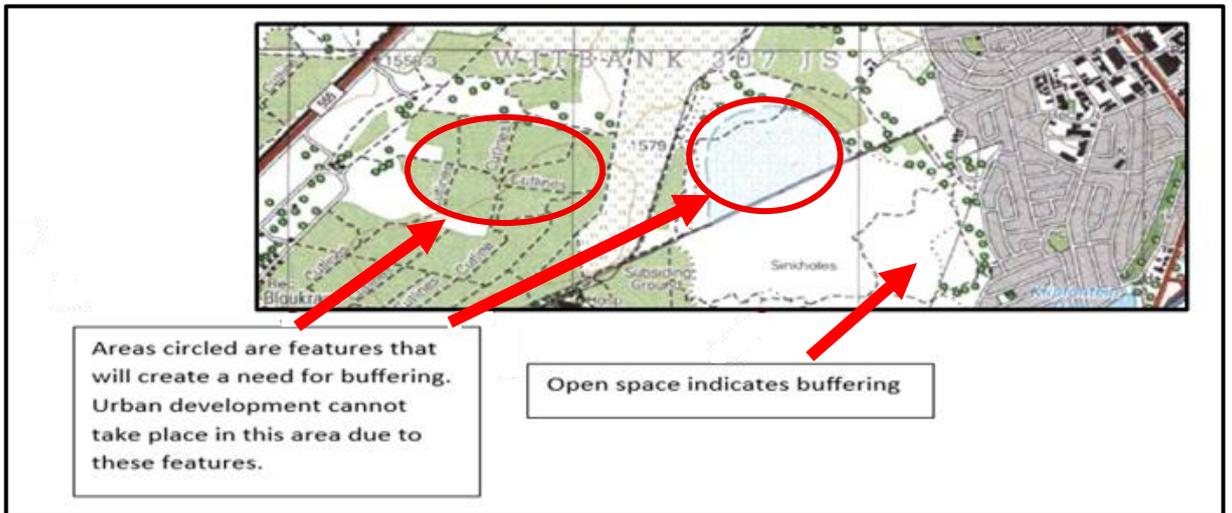


Data integration using data layering

- (k) Q3.3.2. A proper understanding of the different data layers is required. The topographical map could assist as is illustrated below.



- (l) Q3.3.4. Learners need to have a proper understanding of the term *buffering*: the demarcation of an area around a geographical feature/location. To have a proper understanding learners need to apply this term to both the maps. This is illustrated below.



# CHAPTER 7

## HISTORY

The following report should be read in conjunction with the History question papers of the November 2025 NSC examinations.

### 7.1 PERFORMANCE TRENDS (2021–2025)

The number of candidates who sat for the History examination in 2025 increased significantly by 23 763 compared to that of 2024.

There was also a marginal improvement in the pass rate this year. Candidates who passed at the 30% level improved from 90,3% in 2024 to 91,8% in 2025. There was a corresponding improvement in the pass rate at the 40% level over the past two years from 71,8% to 72,3%.

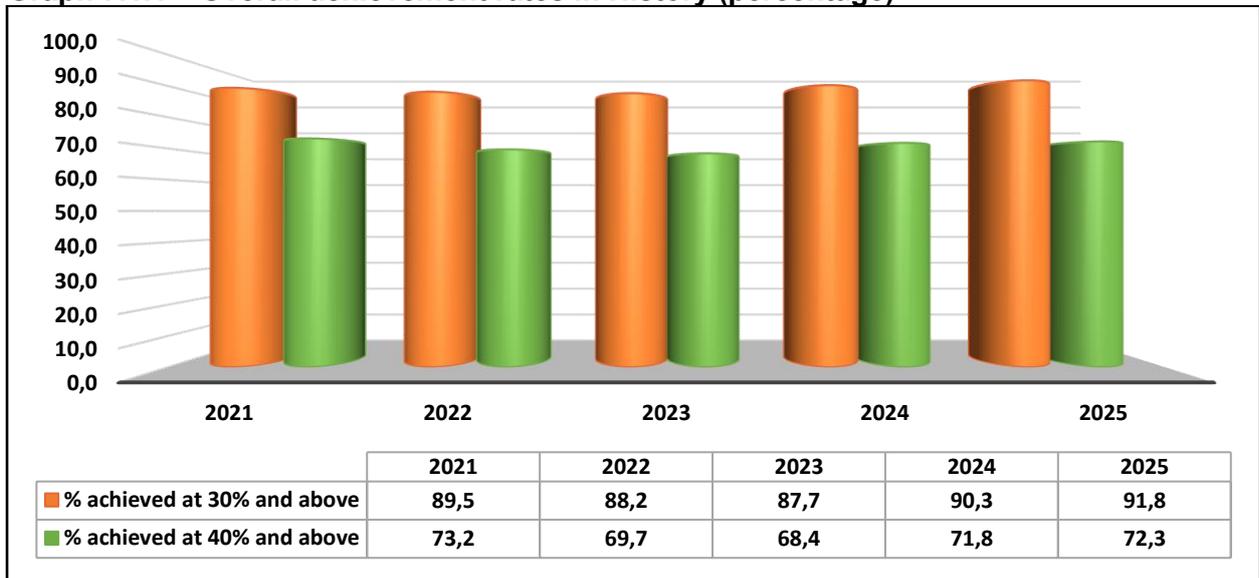
The percentage of distinctions over 80% declined from 3,2% in 2024 to 2,0% in 2025. Given the increase in the size of the 2025 cohort, this converts into a decrease in the total number of distinctions from 7 461 to 5 309.

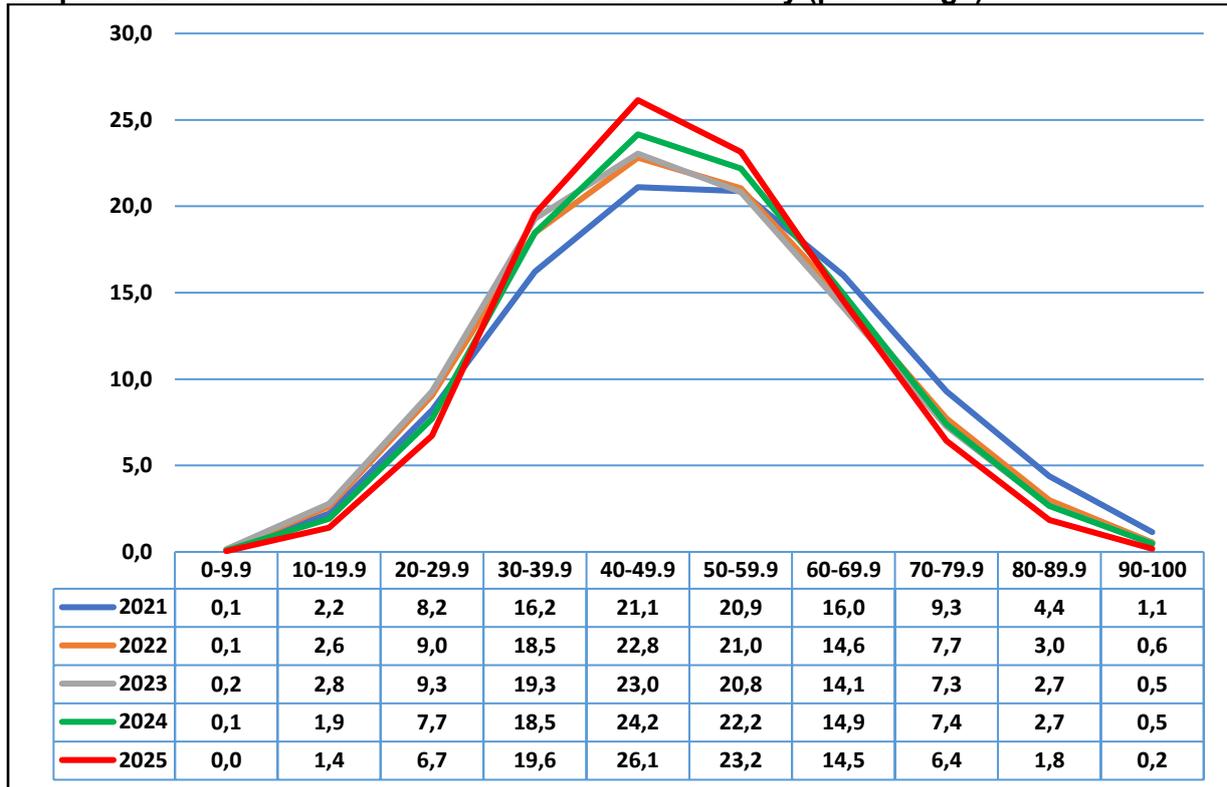
The various commendable intervention strategies employed by teachers, subject advisors and provincial education departments were continued in 2025. The resourcefulness and diligence of the above-average candidates also contributed to the overall improvement in the subject.

**Table 7.1.1 Overall achievement rates in History**

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2021	227 448	203 473	89,5	166 576	73,2
2022	237 327	209 315	88,2	165 483	69,7
2023	225 731	198 052	87,7	154 501	68,4
2024	237 437	214 380	90,3	170 523	71,8
2025	261 200	239 872	91,8	188 759	72,3

**Graph 7.1.1 Overall achievement rates in History (percentage)**



**Graph 7.1.2 Performance distribution curves in History (percentage)**

### General comments on Paper 1 and Paper 2

2025 marked the fifth year (two-year extension) of a new three-year cycle in the subject History, with the introduction of new topics in both papers.

Paper 1 included source-based questions which examined *Origins of the Cold War in Europe*, *Independent Africa: case study – Angola* and the *Civil Rights Movement*, as well as three essays based on the *Extension of the Cold War in Vietnam*, *Independent Africa (the Congo)* and *Civil Society Protests from the 1950s to the 1970s: The Black Power Movement*.

Paper 2 included two relatively new sections. These are the source-based questions, i.e. *Internal Resistance* and an essay, i.e. the *Black Consciousness Movement (BCM)*.

There has been a consistent and gradual improvement in the quality of candidates' performance. It was gratifying to note that candidates had been taught the prescribed content in both Paper 1 and Paper 2, and this was also apparent in the number of candidates who responded to specific choice questions.

However, in Section A (source-based questions) of both question papers, it was clear that a significant number of candidates were unable to extract responses from the addendum. These questions required candidates to extract verbatim responses from the addendum. Many of the candidates paraphrased their responses. Some candidates were unable to answer middle- and higher-order questions. These questions required candidates to interpret, analyse, evaluate, compare and determine the usefulness, limitations and reliability of evidence in sources. Furthermore, many candidates could not write logical and coherent paragraphs based on the key question.

In Section B (essay questions) of the question papers, most candidates displayed good content knowledge but were unable to take a stance and develop a balanced and independent line of argument. Several essays lacked introductions and convincing conclusions.

Teachers must make every effort to ensure that the prescribed content is taught in a user-friendly manner, and this must be underpinned by the requisite historical skills to ensure a further improvement in the overall pass rate.

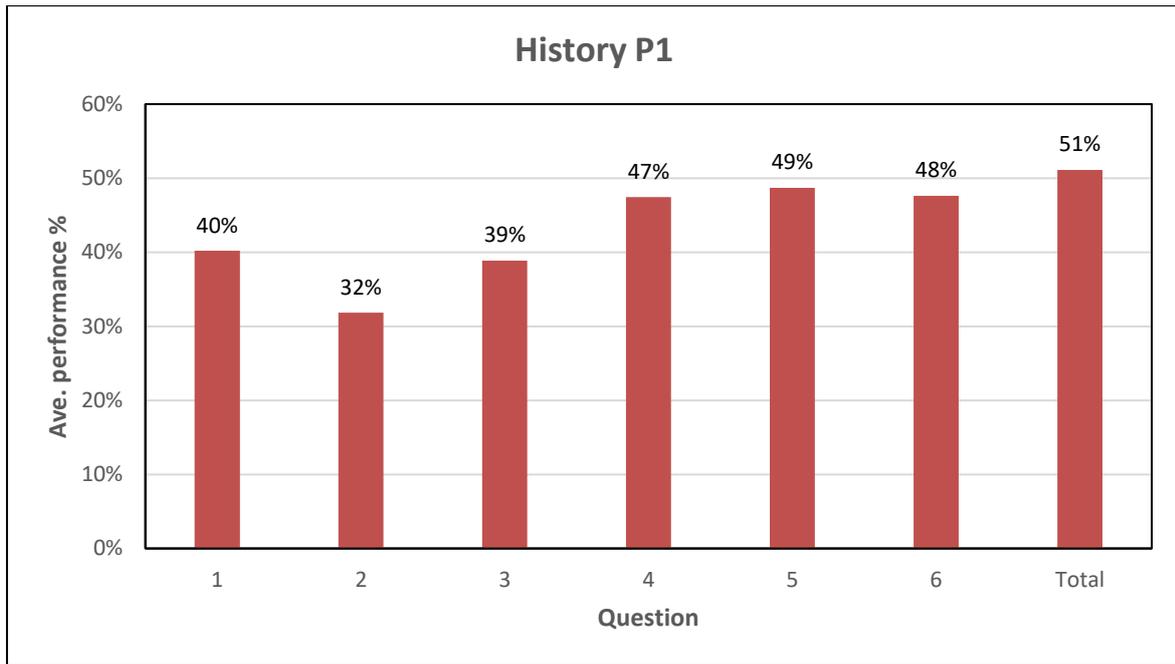
## 7.2 OVERVIEW OF CANDIDATES' PERFORMANCE IN PAPER 1

- (a) The overall performance of candidates in this question paper ranged from fair to very good. In some provinces, candidates achieved full marks (150). Most candidates chose to answer two essay questions and one source-based question. Questions 1, 3, 4 and 6 were the most popular, while Questions 2 and 5 were attempted less frequently.
- (b) In Section A (source-based questions), many candidates had trouble defining historical concepts in their own words and explaining concepts within the relevant historical context. The interpretation of evidence from the sources was generally poor. Candidates demonstrated limited skills in extracting, selecting, interpreting, analysing, evaluating and synthesising information from the sources. Consequently, responses to higher-order questions were often inadequate, particularly those relating to the usefulness, reliability and limitations of sources. The comparison of evidence from different sources also proved to be challenging.
- (c) Many candidates relied predominantly on the information provided in the sources, with minimal use of relevant contextual knowledge. Many candidates were unable to present responses in well-structured paragraphs. Direct copying from the sources was common, and in some instances, candidates responded in point or bullet form, which is not acceptable in History.
- (d) Candidates who performed well demonstrated the ability to interpret, analyse, evaluate, and synthesise evidence from the sources and effectively integrate their own knowledge. These candidates were able to comment meaningfully on the usefulness, reliability and limitations of the sources.
- (e) In Section B (essay questions), there was a general improvement in essay-writing, as most candidates were able to complete a full essay. An emerging trend was the increased number of candidates who opted to answer Question 5 (Congo). While candidates generally displayed adequate content knowledge, many struggled to develop relevant introductions and conclusions, take a clear stance, and sustain a coherent line of argument.
- (f) However, a worrying number of candidates produced responses that reflected memorised or model answers. These responses showed limited originality and little evidence of critical engagement or historical argumentation.

## 7.3 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 1

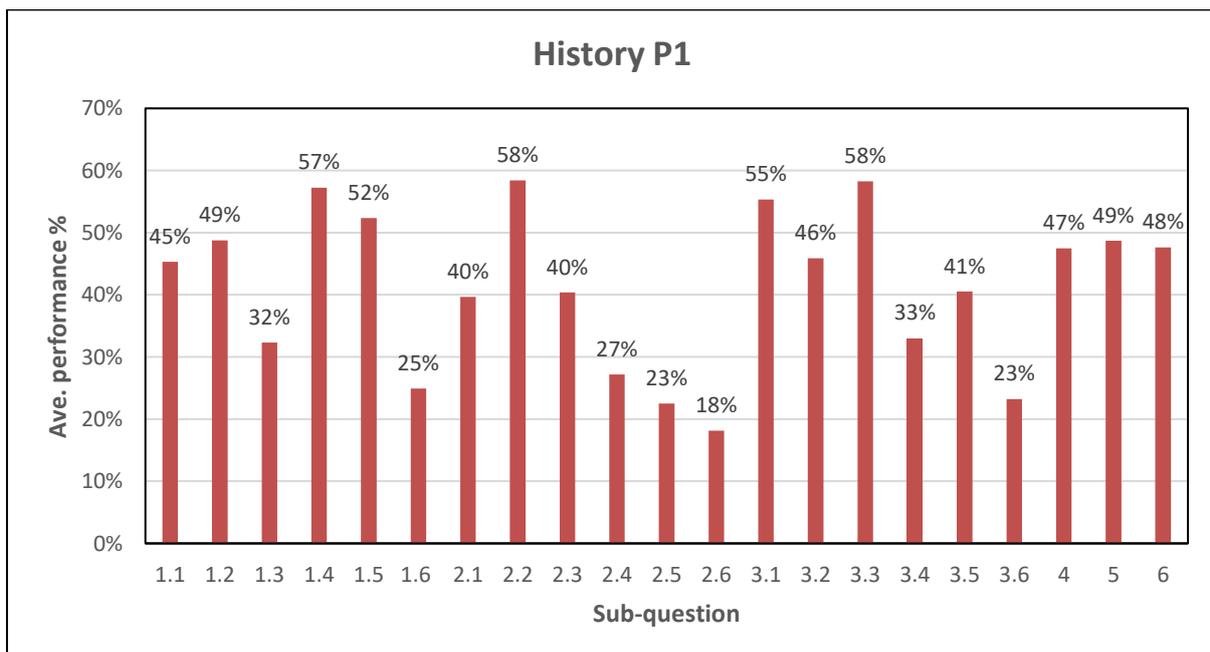
The following graph is based on data that was gathered from a random sample of candidates' scripts. While this graph may not reflect the national averages accurately, it serves as a useful tool to analyse the performance of candidates in specific choice questions.

**Graph 7.3.1 Average performance per question in Paper 1**



Q	Topic/s	Ave Perf%
1	The Cold War: The Origins of the Cold War	40%
2	Independent Africa: Africa in the Cold War: Case Study – Angola	32%
3	Civil Society Protests from the 1950s to the 1970s: The US Civil Rights Movement	39%
4	The Extension of the Cold War – Case Study: Vietnam	47%
5	How was independence realised in Africa in the 1960s and 1970s? Case Study – The Congo	49%
6	Civil Society Protests from the 1950s to the 1970s: The Black Power Movement	48%
TOTAL		51%

**Graph 7.3.2 Average performance per subquestion in Paper 1**



## History

Sub-question	Topic	Ave. performance %
1.1	The Cold War: Origins	45%
1.2	The Cold War: Origins	49%
1.3	The Cold War: Origins	32%
1.4	The Cold War: Origins	57%
1.5	The Cold War: Origins	52%
1.6	The Cold War: Origins	25%
2.1	Independent Africa: Congo	40%
2.2	Independent Africa: Congo	58%
2.3	Independent Africa: Congo	40%
2.4	Independent Africa: Congo	27%
2.5	Independent Africa: Congo	23%
2.6	Independent Africa: Congo	18%
3.1	Civil Society Protest 1950s to 1970s – Civil Rights Movement	55%
3.2	Civil Society Protest 1950s to 1970s – Civil Rights Movement	46%
3.3	Civil Society Protest 1950s to 1970s – Civil Rights Movement	58%
3.4	Civil Society Protest 1950s to 1970s – Civil Rights Movement	33%
3.5	Civil Society Protest 1950s to 1970s – Civil Rights Movement	41%
3.6	Civil Society Protest 1950s to 1970s – Civil Rights Movement	23%
4	Extension of the Cold War – Vietnam	47%
5	Independent Africa – Congo	49%
6	Civil Society Protest 1950s to 1970s- Black Power Movement	48%

Q	Skills assessed	Q	Skills Assessed	Q	Skills assessed	Q	Skills assessed
1.1	1.1.1 Extraction 1.1.2 Interpretation 1.1.3 Definition (Concept) 1.1.4 Interpretation 1.1.5 Reliability	2.1	2.1.1 Extraction 2.1.2 Extraction 2.1.3 Interpretation 2.1.4 Limitation	3.1	3.1.1 Extraction 3.1.2 Extraction 3.1.3 Definition (term) 3.1.4 Interpretation 3.1.5 Extraction	4	Essay
1.2	1.2.1 Analysis/ Interpretation 1.2.2 Interpretation	2.2	2.2.1 Extraction 2.2.2 Extraction 2.2.3 Extraction 2.2.4 Interpretation 2.2.5 Definition (term)	3.2	3.2.1 Extraction 3.2.2 Interpretation 3.2.3 Extraction 3.2.4 Explanation (term) 3.2.5 Usefulness	5	Essay
1.3	Comparison of Sources	2.3	2.3.1 Extraction 2.3.2 Explanation (term) 2.3.3 Interpretation 2.3.4 Extraction	3.3	3.3.1 Interpretation 3.3.2 Interpretation	6	Essay
1.4	1.4.1 Extraction 1.4.2 Extraction 1.4.3 Extraction 1.4.4 Interpretation	2.4	2.4.1 Interpretation 2.4.2 Interpretation	3.4	Comparison of Sources		
1.5	1.5.1 Extraction 1.5.2 Extraction 1.5.3 Explanation (Term) 1.5.4 Interpretation	2.5	Comparison of Sources	3.5	3.5.1 Extraction 3.5.2 Extraction 3.5.3 Interpretation		
1.6	Paragraph	2.6	Paragraph	3.6	Paragraph		

## 7.4 DIAGNOSTIC ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 1

### SECTION A: SOURCE-BASED QUESTIONS

#### QUESTION 1: THE COLD WAR: THE ORIGINS OF THE COLD WAR

##### Common errors and misconceptions

- (a) In Q1.1.2, many candidates were unable to explain why Churchill 'adopted a conciliatory (soft) attitude towards the Soviet Union despite its expansive tendencies'. They simply extracted the information provided in the source, which was not a requirement to answer the question.
- (b) In Q1.1.3, most candidates could not explain the *Iron Curtain* in their own words. They provided generalised responses such as 'it is a line' and 'it was introduced by Churchill'.
- (c) In Q1.1.4, many candidates experienced difficulty to comment on what is implied by the words, '... all these famous cities and the populations around them lie in what I must call the Soviet sphere ...'. They made general statements without providing relevant explanations.
- (d) In Q1.1.5, several candidates struggled to comment on the *reliability* of Source 1A for a historian researching the origins of the Cold War. Responding to a question on the skill of identifying *reliability* remains a challenge for most candidates. They used information from the source verbatim and confused *usefulness* with the *reliability* of a source.
- (e) In Q1.2.1, most candidates were unable to explain the symbolic representation of the following:
- (1) A bear/wolf labelled 'COMMUNIST INFILTRATION AND DICTATORSHIP THREATS'
  - (2) 'U.S. AID' hammer
- They provided irrelevant extractions, non-factual responses and there was a clear lack of comprehension of the USA and USSR power struggle.
- (f) In Q1.2.2, most candidates were unable to comment on why the caption, 'WHAT WE'RE DRIVING AT' would be considered appropriate. It was evident that these candidates did not fully comprehend Source 1B. They extracted the information provided in the source, which was not required to answer the question.
- (g) Q1.3 required candidates to compare two sources. Candidates experienced difficulty to explain how information in Source 1A supports the evidence regarding the increasing threat of communism in Source 1B. Most candidates only provided one comparison and many candidates copied from the contextualisation.
- (h) In Q1.4.4, many candidates could not comment on the implication of the phrase, '... the drive for European integration ...' in the context of the policy of containment. They lacked basic interpretation skills.
- (i) Although Q1.5.1 and Q1.5.2 were extraction questions, they were poorly answered, and candidates found it difficult to earn the 2 marks. These questions required

candidates to extract responses directly from the sources, but many candidates paraphrased their responses. This is the requirement of an extraction question.

- (j) Most candidates could not explain the term *satellite states* in the context of the Cold War (Q1.5.3). The words, *in the context of*, were misunderstood and many candidates made general statements without providing relevant explanations.
- (k) Most candidates provided poor responses to the paragraph question (Q1.6). Candidates copied information directly from the sources. They were, however, unable to use the information in the sources to write a comprehensive paragraph. Most learners display an inability to interpret, evaluate and synthesise information from different sources. A few candidates wrote their paragraphs in point form/bullet form. Some candidates started their responses with an introduction, and others provided a summary of sources. This is not a requirement of paragraph writing.

## **QUESTION 2: INDEPENDENT AFRICA: AFRICA IN THE COLD WAR: CASE STUDY: ANGOLA**

### **Common errors and misconceptions**

- (a) In Q2.1.3, most candidates were unable to explain why it was necessary for the CIA to covertly support FNLA and UNITA in 1975. Some experienced difficulty to respond to the words 'covertly support' in the question. They lacked basic interpretation skills.
- (b) Many of the candidates struggled to explain the *limitations* of Source 2A for a researcher studying the role of the MPLA in Angola. Responding to a question on the skill of identifying limitations, remains challenging for most candidates. They merely explained the usefulness of the source and some candidates merely copied the contextualisation of the source and provided this as their response.
- (c) In Q2.2.4, many candidates could not comment on the implication of the statement, 'The CIA's task seemingly was not to win but to prevent an easy victory for the Soviet-backed forces.' They lacked basic interpretation skills.
- (d) Most candidates could not explain the term *self-determination* in their own words (Q2.2.5). They provided generalised responses such as 'determining one's faith' and 'the power to rule a country'.
- (e) Q2.3.1 was an extraction question. It was poorly answered and candidates found it difficult to score the 2 marks. This question required candidates to extract responses directly from the sources; this is the requirement of an extraction question. Instead, many of the candidates paraphrased their responses.
- (f) Most candidates could not explain the term *covert action* in the context of the CIA programme in Angola (Q2.3.2). The words, *in the context of*, were misunderstood and many candidates made broad statements without providing relevant explanations.
- (g) In Q2.3.3, most candidates could not comment on what was implied by the statement, 'Kissinger feared that an MPLA victory would have destabilising (disrupting) effects throughout southern Africa', in the context of US involvement in Angola. This is likely due to their lack of knowledge about the USA's role in the Angolan Civil War.
- (h) In Q2.4.1, many candidates could not comment on why you would NOT agree with Kissinger's statement, '... and my country as a party involved in the mediation of the conflict, promises to do everything to bring it to a definitive end.' They provided

irrelevant and non-factual responses and there was a clear lack of comprehension of the role of the USA in the mediation of the conflict.

- (i) In Q2.4.2, some candidates lacked the ability to explain the conclusion that can be drawn from the cartoonist's portrayal of the following liberation movements regarding their relations with the USA: (a) MPLA and (b) UNITA. They made broad statements without providing relevant explanations.
- (j) Most candidates had difficulty comparing the information in Sources 2A and 2D regarding the involvement of the USA in the Angolan Civil War in Q2.5. Many of them could not link the information in both sources.
- (k) Many candidates showed very poor competence in paragraph-writing skills and did not answer the question asked. Some candidates looked at sources in isolation. Candidates required the ability to utilise the sources to support their responses to a question without a strong dependence on the use of direct quotes from the source itself.

### **QUESTION 3: CIVIL SOCIETY PROTESTS FROM THE 1950s TO THE 1970s: THE US CIVIL RIGHTS MOVEMENT**

This proved to be a popular question which was attempted by many candidates. The candidates' performance ranged from fair to good.

#### **Common errors and misconceptions**

- (a) In Q3.1.4, many candidates struggled to explain what King Jr implied with the statement, 'It (non-violence) meant putting oneself in the face of violence ...', in the context of the civil society protests. They lacked knowledge and failed to interpret the question correctly. They used information from the source verbatim.
- (b) Q3.2.4 was poorly answered, because many candidates were unable to explain *racial justice* in the context of the USA in the 1960s.
- (c) In Q3.2.5, several candidates struggled to comment on the usefulness of this source for a historian researching non-violent protest in the USA in the 1960s. Responding to a question on the skill to identify *usefulness* remains challenging for most candidates. They used information from the source verbatim and confused *usefulness* with the *reliability* of a source.
- (d) It was evident in Q3.3.1 that some candidates were unable to explain what the following groups wanted to achieve in terms of lunch counter sit-ins in the USA in the early 1960s: (a) Students sitting at the lunch counter; and (b) White group in the background. Many candidates responded by rewriting the message from the source without explaining it.
- (e) Some candidates experienced difficulty with the comparison question (Q3.4). They could not explain how Source 3A was supported by Source 3C regarding King Jr's non-violent approach to the protest actions in the USA in the 1960s. Most candidates only provided one comparison.
- (f) Q3.5.1 was an extraction question. It was poorly answered and candidates found it difficult to earn the 2 marks. This question required candidates to extract responses directly from the sources; this is the requirement of an extraction question. Instead, many of the candidates paraphrased their responses.

- (g) In Q3.5.3, most candidates could not explain the implication of the following concern raised by James Baldwin: '... whether it will be possible to contain the Negro people within this framework of non-violence ...'. This is likely due to their lack of knowledge about the Civil Society Protests in the USA during the 1960s.
- (h) In Q3.6, some candidates struggled to use the information in the relevant sources and their own knowledge to write a coherent paragraph explaining how the non-violent approach adopted by Martin Luther King Jr characterised the civil society protests in the United States of America (USA) during the 1960s.

## **SECTION B: ESSAY QUESTIONS**

### **QUESTION 4: THE EXTENSION OF THE COLD WAR – CASE STUDY: VIETNAM**

This was the most popular question and the performance of candidates who attempted this question ranged from very satisfactory to good. There were many candidates who achieved 50 marks for this question. The marks obtained were marginally better than those obtained in the other essays.

#### **Common errors and misconceptions**

- (a) Many candidates were unable to discuss the following statement: The military tactics and strategies used by the Viet Cong during the Vietnam War between 1962 and 1975 proved to be successful in defeating the strong army of the USA. Do you agree with this statement? Support your line of argument with relevant historical evidence. They had difficulty understanding the statement. They discussed the tactics used by the USA without mentioning the tactics and strategies employed by the Viet Cong.
- (b) Some candidates provided unnecessary and detailed background information about Vietnam. Candidates needed to address what was required by the question.
- (c) A substantial number of candidates applied the *L* in the *PEEL* method incorrectly. They ended each paragraph by simply repeating the statement provided in the question, which did not relate to the information provided in the preceding paragraph.
- (d) It was also noted that the essays of weaker candidates lacked proper introductions and contained irrelevant background information. In addition, many candidates could not sustain their line of argument or draw convincing conclusions.
- (e) Chronology should be stressed in this question as the line of argument depends on it.

### **QUESTION 5: INDEPENDENT AFRICA: HOW WAS INDEPENDENCE REALISED IN AFRICA IN THE 1960s AND 1970s? – CASE STUDY: THE CONGO**

The number of candidates who respond to this question is increasing. Generally, the performance ranged from satisfactory to good.

#### **Common errors and misconceptions**

- (a) A large percentage of candidates who attempted this question were unable to critically discuss the statement that, 'The political, economic, social and cultural policies introduced by Mobutu Sese Seko after gaining independence in the 1960s were a dismal failure'.

- (b) The content presented was largely discursive and there was an attempt to develop a line of argument.
- (c) Most candidates seemed to have written prepared or model essays rather than argumentative responses.

**QUESTION 6: CIVIL SOCIETY PROTESTS FROM THE 1950s TO THE 1970s –THE CIVIL BLACK POWER MOVEMENT**

Most candidates answered this question and seemed to have prepared for the theme thoroughly. Those who did not perform well appeared to be candidates who had not covered, or were not taught, this theme at school.

**Common errors and misconceptions**

- (a) Many candidates were unable to explain the extent to which the Black Power Movement was successful in organising African Americans to challenge racial discrimination and segregation in the USA during the 1960s.
- (b) Some candidates just gave a narrative account of Black Power, the philosophy, the leaders and the Black Panthers without mentioning how it was successful in organising African Americans to challenge racial discrimination and segregation in the USA during the 1960s.
- (c) A few candidates wrote essays that lacked introductions, a logical and sequential body of events, as well as persuasive conclusions.
- (d) Most candidates seemed to have written prepared or model essays rather than argumentative responses.

**7.5 OVERVIEW OF CANDIDATES' PERFORMANCE IN PAPER 2**

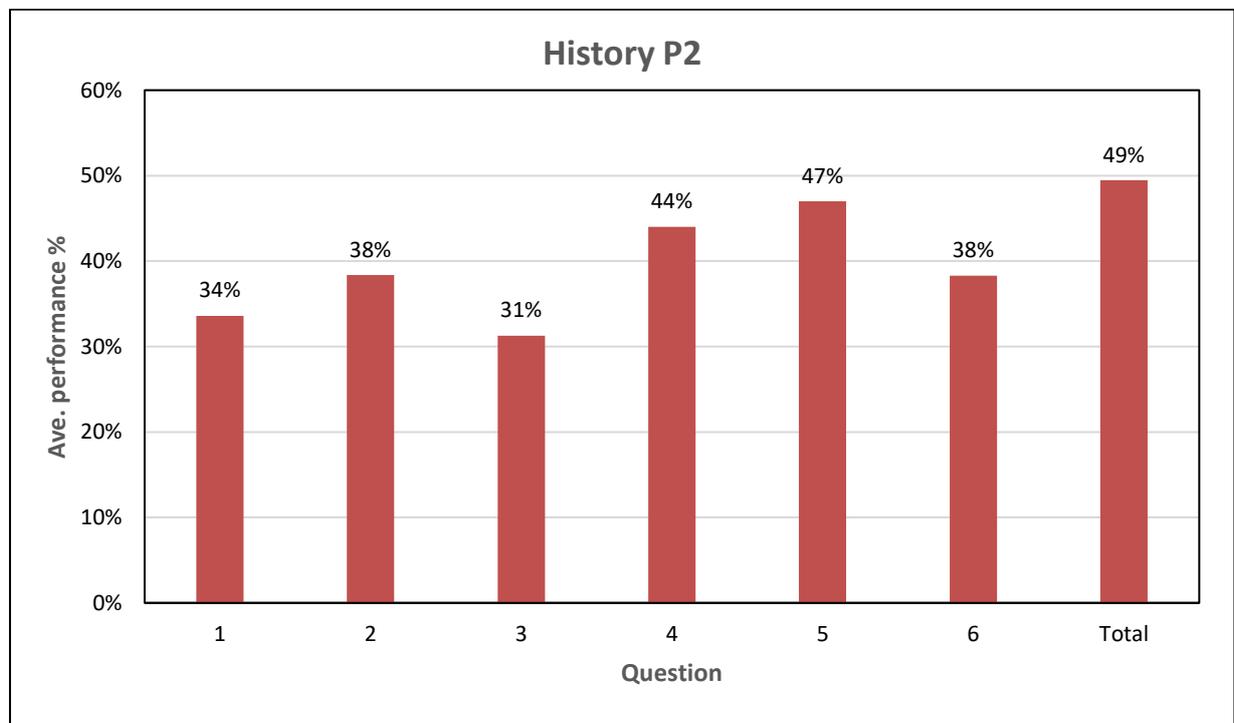
- (a) Generally, candidates' performance in this question paper ranged from fair to above average with a few candidates performing excellently.
- (b) Many candidates chose two essay questions and one source-based question, and they performed better than those who chose two source-based and one essay question.
- (c) There is, however, a marked improvement in extraction responses. Candidates still struggled with source-based questions, mainly because they cannot respond to middle-order (interpretation and analysis) as well as higher-order (usefulness, reliability, limitations, comparison and paragraph-writing) questions. A challenge with paragraph writing is that candidates merely copy sentences from various sources without attempting to respond to the question.
- (d) The popular choice questions were Q1 and Q2 (Source-based), and Q4 and Q5 (Essays). Questions 3 and 6 remained unpopular as they were attempted by very few candidates whose performance was also poor.
- (e) There was still a noticeable trend of model responses in essay writing. The number of prepared essays (model answers) remains high. Most candidates failed to provide properly structured argumentative essays with a relevant line of argument. There was, however, a slight improvement in responses to a critically discuss-type of question.

- (f) English seemed to provide a language barrier for most second-language speakers. Most candidates continued to struggle to respond to interpretation questions, apparently because they misunderstood or misinterpreted the questions posed.
- (g) There were a few candidates who managed to score 135 out of 150 marks in the paper, implying that there will be some candidates with excellent performances.
- (h) There was a noticeable improvement in questions involving *usefulness and reliability of sources*. However, questions asking for *limitations* and *comparison* of sources remained a challenge for most candidates.
- (i) In Section B, the practice of providing model essay responses continued as most candidates presented prepared essays based on essay questions from previous question papers. As a result, they failed to take a stance that directly responded to the question posed. Consequently, their responses did not provide a proper line of argument. In most cases, their essay responses remained descriptive. Many candidates' grasp of content helped them to perform at an average level, while candidates with very good content knowledge excelled, not only in developing relevant introductions and conclusions, but also in taking a line of argument and sustaining it throughout. The latter accounted for candidates who were able to score 50 out of 50 for essays – and therefore contributed to the improved performance in the paper in general.

## 7.6 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

The following graph is based on data that was gathered from a random sample of candidates' scripts. While this graph may not accurately reflect the national averages, it serves as a useful tool to analyse candidates' performance in specific choice questions.

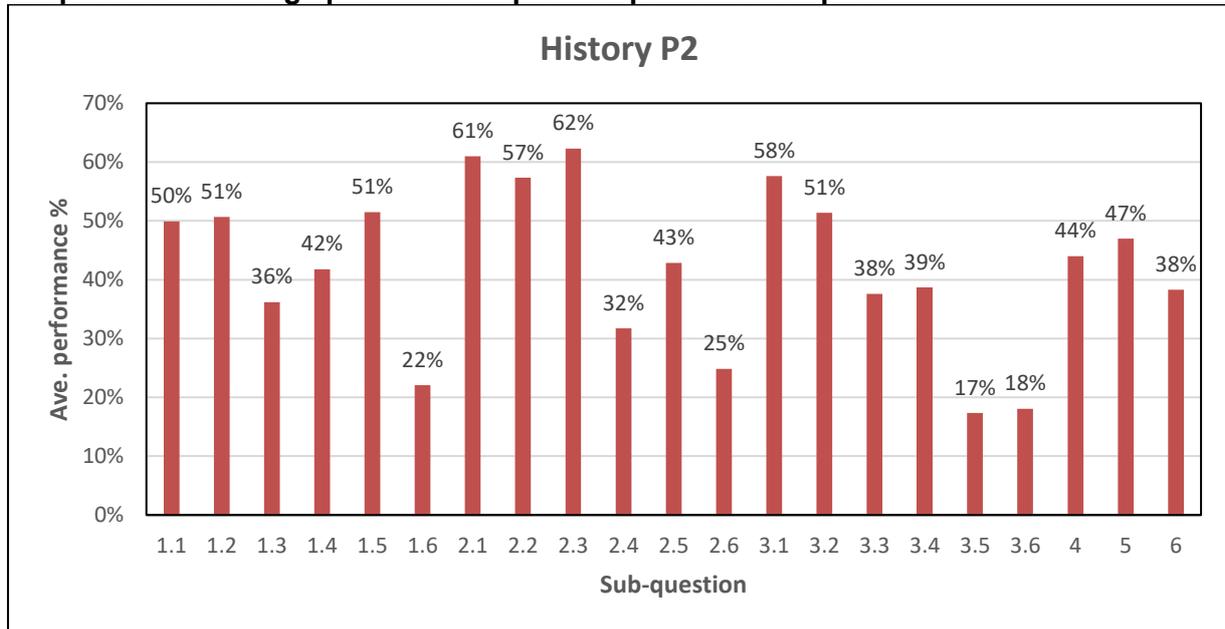
**Graph 7.6.1 Average performance per question in Paper 2**



## History

Q	Topics	Ave Perf%
1	Civil Resistance, 1970s to 1980s: SA – The crisis of apartheid in the 1980s: Internal resistance to reforms	34%
2	The coming of democracy to South Africa and coming to terms with the past – The TRC	38%
3	The end of the Cold War and a New World Order, 1989 to the present – A new World Order	31%
4	Civil Resistance, 1970s to 1980s: South Africa: Challenge of Black Consciousness to the Apartheid State	44%
5	The Coming of Democracy to SA and Coming to Terms with the Past – Negotiated Settlement and the GNU	47%
6	End of Cold War and a New World Order: Impact of Gorbachev's Reforms on the Soviet Union and SA	38%
<b>TOTAL</b>		<b>49%</b>

**Graph 7.6.2 Average performance per subquestion in Paper 2**



Sub-question	Topic	Ave. performance %
1.1	Civil Resistance 1970s to 1980s: South Africa	50%
1.2	Civil Resistance 1970s to 1980s: South Africa	51%
1.3	Civil Resistance 1970s to 1980s: South Africa	36%
1.4	Civil Resistance 1970s to 1980s: South Africa	42%
1.5	Civil Resistance 1970s to 1980s: South Africa	51%
1.6	Civil Resistance 1970s to 1980s: South Africa	22%
2.1	Coming of Democracy to SA and Coming to Terms with the Past	61%
2.2	Coming of Democracy to SA and Coming to Terms with the Past	57%
2.3	Coming of Democracy to SA and Coming to Terms with the Past	62%
2.4	Coming of Democracy to SA and Coming to Terms with the Past	32%
2.5	Coming of Democracy to SA and Coming to Terms with the Past	43%
2.6	Coming of Democracy to SA and Coming to Terms with the Past	25%
3.1	End of the Cold War and New World Order, 1989 to Present	58%
3.2	End of the Cold War and New World Order, 1989 to Present	51%

3.3	End of the Cold War and New World Order, 1989 to Present	38%
3.4	End of the Cold War and New World Order, 1989 to Present	39%
3.5	End of the Cold War and New World Order, 1989 to Present	17%
3.6	End of the Cold War and New World Order, 1989 to Present	18%
4	Civil Resistance 1970s to 1980s: South Africa	44%
5	Coming of Democracy to SA and Coming to Terms with Past	47%
6	End of the Cold War and New World Order: Events of 1989	38%

Q	Skills assessed	Q	Skills assessed	Q	Skills assessed	Q	Skills assessed
1.1	1.1.1 Extraction 1.1.2 Definition (term) 1.1.3 Interpretation 1.1.4 Interpretation	2.1	2.1.1 Extraction 2.1.2 Extraction 2.1.3 Interpretation 2.1.4 Definition (term)	3.1	3.1.1 Extraction 3.1.2 Extraction 3.1.3 Definition (term) 3.1.4 Interpretation	4.	Essay
1.2	1.2.1 Interpretation 1.2.2 Interpretation 1.2.3 Analysis	2.2	2.2.1 Extraction 2.2.2 Interpretation 2.2.3 Interpretation 2.2.4 Interpretation 2.2.5 Reliability	3.2	3.2.1 Extraction 3.2.2 Explain (concept) 3.2.3 Extraction 3.2.4 Interpretation	5.	Essay
1.3	Comparison						
1.4	1.4.1 Extraction 1.4.2 Explain concept 1.4.3 Extraction 1.4.4 Limitations	2.3	2.3.1 Extraction 2.3.2 Extraction 2.3.3 Explain term 2.3.4 Interpretation	3.3	3.3.1 Analysis 3.3.2 Interpretation	6.	Essay
		2.4	Comparison				
1.5	1.5.1 Extraction 1.5.2 Interpretation 1.5.3 Extraction 1.5.4 Interpretation	2.5	2.5.1 Analysis 2.5.2 Interpretation	3.4	3.4.1 Extraction 3.4.2 Extraction 3.4.3 Interpretation 3.4.4 Usefulness		
				3.5	Comparison		
1.6	Paragraph	2.6	Paragraph	3.6	Paragraph		

## 7.7 DIAGNOSTIC ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 2

### SECTION A: SOURCE-BASED QUESTIONS

#### QUESTION 1: CIVIL RESISTANCE, 1970s TO 1980s: SOUTH AFRICA: THE CRISIS OF APARTHEID IN THE 1980s – INTERNAL RESISTANCE TO REFORMS

##### Common errors and misconceptions

- Generally, Q1 was popular but its performance ranged from fair to average.
- Simple extraction questions, like Q1.1.1, Q1.4.1, Q1.4.3 and Q1.5.1, saw poor performance because some candidates provided incomplete responses (extractions). As a result, candidates found it difficult to get full marks for simple extractions.
- The overall performance in Q1.1.2 was poor. Candidates were unable to define the term, '*non-parliamentary opposition group*' in their own words. Their responses did not include all aspects of the term.

- (d) Most candidates answered the following interpretation questions as if they were extractions: Q1.1.3, Q1.2.1, Q1.5.2, Q1.5.3 and Q1.5.4. In the process, they lost marks. They either did not understand or misinterpreted the requirements of the questions.
- (e) Many candidates were unable to explain the concept '*grievances*' in Q1.4.2 in the context of COSATU's activities in the 1980s.
- (f) Several candidates failed to determine the *limitations* of Source 1C in Q1.4.4. A few candidates who attempted the question only managed to provide one response and scored only 2 of the 4 marks.
- (g) Most candidates could not explain the implication of the statement in Q1.1.4. There were a few, however, who managed to score 2 out of the 4 marks in the subquestion.
- (h) Questions based on the implication of the statement (Q1.1.3) and the significance of the phrase or statement (Q1.2.1) still posed a challenge to some candidates. The application of knowledge appeared to be a challenge for candidates when unpacking the question posed.
- (i) Most candidates managed to score only 2 of the 4 marks for the comparison question (Q1.3) on how Sources 1A and 1B support each other regarding COSATU's mass mobilisation against the apartheid government in the 1980s.
- (j) The paragraph question (Q1.6) was poorly answered as most candidates extracted the answer directly from the sources and could not write an original paragraph. Many candidates lacked the ability to identify relevant evidence from sources that they should have used to write logical and coherent paragraphs. Consequently, most candidates only managed a Level 1 (0–2) and Level 2 (3–5) score and not a Level 3 (6–8) score.

**QUESTION 2: THE COMING OF DEMOCRACY TO SOUTH AFRICA AND COMING TO TERMS WITH THE PAST – THE TRC**

**Common errors and misconceptions**

- (a) Many candidates responded to extraction questions correctly (Q2.1.1, Q2.1.2, Q2.2.1 and Q2.3.2), but a few candidates unfortunately provided incomplete responses to Q2.3.1.
- (b) Most candidates provided extracted responses instead of interpreting the following Level 2 questions: Q2.1.3, Q2.2.2, Q2.2.3, Q2.2.4 and Q2.3.4. The challenge with this type of questions was the candidates' lack of application skills.
- (c) Language limitations or application of knowledge seemed to be contributing factors to the inability of many candidates to respond to why Amnesty International declared Rev. Farisani 'a prisoner of conscience'.
- (d) Many candidates could not define the term *persecution* in their own words (Q2.1.4) or explain the term, *oral testimony* in the context of application for amnesty to the TRC (Q2.3.3).
- (e) Cartoon analysis remained a challenge for almost all candidates. They failed to determine the symbolic representation of cartoon elements (Dullah Omar and the policemen) in Q2.5.1.
- (f) Most candidates could not respond to Q2.2.5 correctly as they struggled to make sense

of the *reliability* of Source 2D. They responded incorrectly by copying information from the contextualisation.

- (g) In Q2.4 (Comparison), a few candidates could not score 4 full marks for how sources supported each other regarding human rights violations against Rev. Farisani.
- (h) In Q2.6, most candidates extracted information directly from the source, without using it to respond to the question. As a result, they managed to score marks only at L1 and L2 of the marking rubric.

### **QUESTION 3: THE END OF THE COLD WAR AND A NEW WORLD ORDER, 1989 TO THE PRESENT – A NEW WORLD ORDER**

#### **Common errors and misconceptions**

- (a) Most responses on extraction for Q3.2.3, Q3.4.1 and Q3.4.2 were incomplete, resulting in incorrect answers.
- (b) Q3.1.3 was poorly answered by many candidates as they struggled to define the term *summit* in their own words. The main reason for this could be that the topic was not taught or there was a lack of understanding of the relevant content. Similarly, many candidates failed to explain the concept *de-dollarisation* in the context of BRICS challenging the Global North (Q3.2.2).
- (c) Most candidates failed to explain the significance of six countries joining BRICS (Q3.1.4).
- (d) Many candidates failed to respond to Q3.3.1 appropriately because they could not analyse the graph to process the provided data.
- (e) A few candidates struggled to explain the *usefulness* of Source 3D in Q3.4.4.
- (f) Some candidates still struggled to fully respond to the comparison question (Q3.5). They mostly provided one aspect of the response and in the process only obtained 2 of the 4 marks. Other candidates just copied unrelated information from the two sources to compare.
- (g) Most candidates could not write a logical and coherent paragraph for Q3.6. Instead, they merely copied or extracted incoherent information directly from the sources with little attempt to answer the question.

#### **SECTION B: ESSAY QUESTIONS**

### **QUESTION 4: CIVIL RESISTANCE, 1970s TO 1980s: SOUTH AFRICA – THE CHALLENGE OF BLACK CONSCIOUSNESS TO THE APARTHEID STATE**

#### **Common errors and misconceptions**

- (a) Question 4 was the most popular essay question. The performance ranged from below average to excellent, with some candidates scoring 50 out of 50. However, some responses were generally descriptive or narrative in nature and lacked the originality required of an effective argumentative essay.

- (b) Some candidates had a basic understanding of the related content; they were able to take a stance but could not sustain a line of argument as per the question instruction.
- (c) A few candidates who might not have been taught well, confused BCM (Biko) with CRM (Martin Luther King).
- (d) Most candidates seemed to have written prepared essays (based on previously set questions) rather than providing an original argumentative response.
- (e) In most cases, the PEEL method was not properly applied and where attempts were made to use it, it was artificially applied, with candidates simply re-writing the same concluding sentence at the end of each paragraph.

**QUESTION 5: THE COMING OF DEMOCRACY TO SOUTH AFRICA AND COMING TO TERMS WITH THE PAST – NEGOTIATED SETTLEMENT AND THE GNU**

**Common errors and misconceptions**

- (a) This was the second most popular question and performance was relatively fair.
- (b) Most candidates did not address the question adequately because they could not provide a response that critically discussed the question. Their introductions and conclusions were not properly contextualised. They also failed to maintain a consistent and structured line of a critically discussed argument; their essays were generally descriptive and content-focused rather than argumentative in nature.
- (c) Most candidates did not know how to distinguish a *violent* from a *non-violent* process of negotiations.
- (d) Some candidates experienced challenges with chronology and sequencing of events.
- (e) Most candidates seemed to have written prepared or model essays rather than argumentative responses. In most cases, candidates reproduced content in the form of notes that had been provided by a teacher.
- (f) Poor application of the PEEL method was evident.

**QUESTION 6: END OF THE COLD WAR AND A NEW WORLD ORDER – IMPACT OF GORBACHEV'S REFORMS ON THE SOVIET UNION AND SOUTH AFRICA**

**Common errors and misconceptions:**

- (a) This was the least popular question, with performance ranging from poor to excellent.
- (b) Generally, the essay responses were poorly structured. The introduction and conclusion were not properly contextualised, and no line of argument was developed.
- (c) The question focused on how Gorbachev's reforms led to the collapse of the Soviet Union, but many candidates focused on the impact of bringing a democratic dispensation to South Africa. The part on South Africa was not a requirement.

- (d) The fact that candidates did not concern themselves with the focus of the question, but stuck to irrelevant responses, proved that they had prepared responses. Candidates paid no attention to the PEEL method.

## 7.8 SUGGESTIONS FOR IMPROVEMENT IN PAPER 1 AND PAPER 2

### Teachers should:

- (a) Ensure that the prescribed content as outlined in *CAPS*, the Abridged Section 4 of *CAPS*, and the *2021 Examination Guidelines*, is fully aligned with the Annual Teaching Plan (ATP) for 2026.
- (b) Refer to the Diagnostic Report (2025) and systematically integrate the recommended strategies for improvement into teaching, learning, and learner-support interventions.
- (c) Incorporate relevant themes using interactive, learner-centred teaching methodologies and appropriate notes to enable learners to develop an in-depth understanding of the prescribed content focus areas. Notes should be treated as a means towards an end and not as an end-product that should serve as an answer.
- (d) Make regular use of past NSC question papers to familiarise learners with the assessment of challenging skills and to integrate these skills into daily classroom activities. Avoid using previous question papers to prepare model answers.
- (e) Integrate a greater number of Level 3 (higher-order) questions into classroom-based activities to strengthen analytical and evaluative skills.
- (f) Introduce and foreground key historical concepts at the beginning of each new topic. Develop and apply a list of key historical concepts (defined in learners' own words and in context) for each theme throughout the year to support the answering of interpretative questions. Teachers are encouraged to use the *DBE Second Chance* learner booklet.
- (g) Expose learners to a broader content base by encouraging regular reading of prescribed material and supplementing this with additional sources such as documentaries, primary sources and other relevant historical materials.
- (h) Support learners through regular informal assessment (Assessment for Learning) before new lessons, focusing on simple extraction skills and assessing understanding of concepts and content previously covered.
- (i) Use previous NSC question papers to expose learners to the types of questions expected in both informal and formal assessment tasks, in answering Level 2 and Level 3 questions, as well as in examinations.
- (j) Guide learners to identify key words and clues in the addendum when answering Level 1 questions, emphasising that answers should be extracted directly from the source and written verbatim in full sentences.
- (k) Train learners in paragraph-writing skills, ensuring that responses are written in learners' own words and not randomly or directly extracted from different sources, without responding to the question.
- (l) Expose learners to a variety of source types (visual, written, statistical, graphical and electronic) and provide sufficient opportunities to develop source-based skills, including

extraction, selection of relevant information, interpretation, cartoon analysis or visual literacy, evaluation, comparison, and assessment of *usefulness, reliability and limitations* of sources.

- (m) Ensure that learners understand the historical narrative ('the story') before attempting analysis and responding to questions.
- (n) Strengthen learners' ability to work with sources by teaching subject terminology such as implication, significance and meaning of statements or phrases.
- (o) Conduct item analysis after formal assessment tasks to provide constructive feedback and guide remediation.
- (p) Integrate ICT into lessons to enhance learner understanding and provide opportunities for differentiated learning. Teachers should develop user-friendly resources, particularly for new content areas such as the Origins of the Cold War, Vietnam, Congo, Internal Resistance to Reform and the Black Consciousness Movement.
- (q) Prioritise the teaching of essay-writing skills. Specific components of the essay (e.g. introductions) should be practised through informal tasks, using a variety of questions to consolidate content knowledge.
- (r) Teach all the bullet points stipulated in the *Examination Guidelines*. Attention should be paid to the topic on the collapse of Communism, ensuring in-depth coverage of South Africa and the USSR.
- (s) Administer at least three informal assessment activities per week, focusing on source-based and essay writing skills, while ensuring an appropriate balance between quantity and quality.
- (t) Share marked model scripts with learners to illustrate the standard required for argumentative essays. This should be done to develop an understanding of quality responses and not to encourage rote learning. Memorisation of prepared essays must be discouraged.
- (u) Broaden content knowledge by consulting more than one textbook and engaging with a range of resources such as media articles, newspaper supplements, radio and television features. Teachers should regularly access the DBE website for guidance on working with sources and SBA requirements.
- (v) Provide learners with increased exposure to the Truth and Reconciliation Commission (TRC), particularly in relation to source-based questions and case studies. Teachers are encouraged to use resources from the South African History Online (SAHO) and the South African History Archive (SAHA).
- (w) Supplement teaching resources for the topic The End of the Cold War and a New World Order, ensuring that all bullets in the *Examination Guidelines* are adequately addressed.
- (x) Strengthen paragraph-writing skills by guiding learners to:
  - Read questions carefully and underline key words.
  - Study all sources thoroughly.
  - Identify and incorporate relevant evidence from sources.
  - Write an opening sentence that addresses the question and a concluding sentence that supports the argument.

- Use their own words and avoid direct copying.
  - Write concise, focused sentences.
  - Ensure that responses address the question directly.
- (y) Encourage the consistent use of the 5 Ws in historical enquiry to deepen understanding of content.

Question to ask	Purpose
Who?	To gain knowledge about historical figures
What?	To equip learners with historical knowledge
When?	To study historical periods
Where?	To learn where historical events took place
Why?	To learn why historical events took place

On completion of a topic or specific content focus, learners should be trained to acquire skills by asking them to apply the 5 Ws to the content being taught.

- (z) Set skills-based tasks that assess specific cognitive levels, such as comparison questions, ensuring that responses are structured according to the demands of the question.
- (aa) Develop essay-writing techniques by:
- Teaching learners to unpack questions by identifying the action verb, content focus, context, and time frame.
  - Training learners in the stages of essay writing (introduction, body using PEEL, conclusion).
  - Ensuring that a clear line of argument is developed and sustained throughout the essay.
- (bb) Guide learners to produce argumentative essays with strong introductions, well-developed paragraphs that sustain the line of argument, and conclusions that link back to the introduction.
- (cc) Attend subject workshops, meetings, and briefing sessions to remain informed about CAPS requirements, *Examination Guidelines* and effective teaching strategies.
- (dd) Ensure that learners are exposed to a broad range of content to develop an in-depth understanding of each topic.
- (ee) Focus on equipping learners with essay-writing skills rather than providing prepared essays, which is strongly discouraged.
- (ff) Avoid relying solely on marking guideline bullets when teaching essays; additional textbook content should be consulted to broaden learners' understanding.
- (gg) Engage in ongoing research into current trends in History teaching and learning.
- (hh) Teach learners a structured approach to comparing sources, focusing on identifying similarities and differences, understanding context, author perspective and purpose, and ensuring that responses refer explicitly to both sources:
- Read the question thoroughly and underline the main point.
  - Study the contextualisation of both sources and underline the main context.

- Check the author and the purpose of each source, after studying the contextualisation of the source. This will give a clue about the perspective and intention of the source, which could then be compared to the other source.
- Detect opposing viewpoints by identifying the rival organisations or ideologies that the two sources represent. If opposing viewpoints form part of the contextualisation of the two sources that are compared, learners must underline both viewpoints, because the different perspectives displayed by each source will already provide the learner with one option of the answer.
- Familiarise themselves with the information in the sources mentioned. The 5 Ws stated earlier can be used in this regard.
- Have a clear understanding of what a visual source entails by finding dates, numbers, historical figures, facial expressions, text, or any other object relevant to the question.
- Provide the required responses to the question in either of the following ways:
  - In answering a question about similarities, learners could use the following: *Both sources refer to ... or Source 1A mentions ..., and Source 1B shows ...*
  - When comparing information for differences or contrast, it is crucial that learners state: *Source 1A says ... WHILE Source 1B states ... or In Source 1A we read, ... WHILE Source 1B shows ... or Source 1A is written from a communist perspective (Russian point of view), WHILE Source 1B is written from a capitalist perspective (US point of view).*
- Highlight the point that will be credited for each response that refers to both sources, i.e. two (2) marks. To obtain full marks for a question with a mark allocation of (2 x 2) (4), learners should provide TWO responses that refer to both sources, but on two different aspects.

**SUBJECT ADVISORS SHOULD:**

- (a) Support teachers to understand the expectations of the *Examination Guidelines*, with emphasis on the teaching of all prescribed bullets.
- (b) Analyse the Diagnostic Report thoroughly and conduct capacity-building workshops for teachers; focusing on its findings, identified challenges, and teacher support.
- (c) Plan and facilitate targeted content and assessment workshops for FET History teachers.
- (d) Provide training on setting and marking middle-order and higher-order source-based, and essay questions, using learner scripts to apply rubrics and marking matrices accurately.
- (e) Monitor and conduct pre- and post-moderation of assessment tasks administered by teachers.
- (f) Develop and distribute appropriate teaching and learning resources.
- (g) Train teachers on setting quality assessment tasks to ensure standardisation across the Programme of Assessment.
- (h) Encourage teachers to show learners how to write original argumentative essays and to avoid preparing essays for learners (AT SCHOOL, CIRCUIT OR DISTRICT LEVEL).
- (i) **SUGGESTIONS FOR TEACHING RELIABILITY, USEFULNESS, AND LIMITATIONS OF A SOURCE:**

For proper evaluation of these aspects, the **contextualisation of the source** should include the following:

- Who the **author (owner)** of the source is: this should not only address the name but also the position or profile of the author;
  - Identifying the author as a chairperson of an institution or as the President of a country might suggest the *reliability or usefulness* of a source; or *limitation* of the sources – depending on the context of the source.
  - A source by an author from a rival ideology might suggest NOT Reliable or NOT Useful depending on the context of the question. If the source is biased/one-sided that would be a Limitation of the source – again, depending on the context of the question.
- **When (date)** the source was written:
  - It is important to check whether the date of the source was at the time of the event or whether it was too far away from the time of the event. The date of a source very close to the event can be regarded as *Reliable or Useful*, though it is not always the case, because the source can still be biased.
  - A source far removed from the time of the event, offering a perspective different from the original, might be a deliberate distortion, suggesting the *Limitation* of the source.
- **Where (the venue/place)** the source was created:
  - A speech given in an official venue, e.g. parliament or at an official function held anywhere, would give credit to the *Reliability or Usefulness* of a source.
  - Publications in US national newspapers, such as *The New York Times* or *The Washington Post*, may be pro-capitalist (Reliable or Useful) or anti-communist (Not Reliable or Not Useful), depending on the context of the question.
  - Publications in newspapers from the Soviet Union, e.g. *Pravda* or *Izvestia*, might be pro-communist or anti-capitalist, depending on the context of the question.
- The **purpose** of writing (publishing) the source or **why** the source was published:
  - If the purpose is to strengthen internal processes of an institution or to outline how a project would unfold, that could be positive (*Reliable or Useful*), but if it paints a negative picture about a rival ideology, it could be considered as full of propaganda and therefore be regarded as biased (*having limitations*).
  - Is the source an opinion piece of writing (biased) or information (*Reliable/Useful*)?
- Can the information be independently **corroborated**?
  - Refer to other sources within the addendum that corroborate information in the question (*Reliability or Usefulness*).

#### TEACHER DEVELOPMENT SHOULD:

- (a) Identify teacher needs as highlighted in the Diagnostic Report.
- (b) Support teachers in planning and presenting interactive History lessons.
- (c) Provide induction, mentorship and guidance to newly appointed teachers.
- (d) Equip teachers with current trends and skills regarding History methodology.
- (e) Train teachers on marking, particularly on extraction, comparison, and essay questions.
- (f) Promote the application of Language Across the Curriculum (LAC).

- (g) Train school principals or heads of departments (DHs) on implementing quality management systems to support effective curriculum implementation and delivery.

# CHAPTER 8

## LIFE SCIENCES

The following report should be read in conjunction with the Life Sciences question papers of the November 2025 NSC examinations.

### 8.1 PERFORMANCE TRENDS (2021–2025)

The number of candidates who sat for the Life Sciences examination in 2025 increased by 7 657 compared to that of 2024.

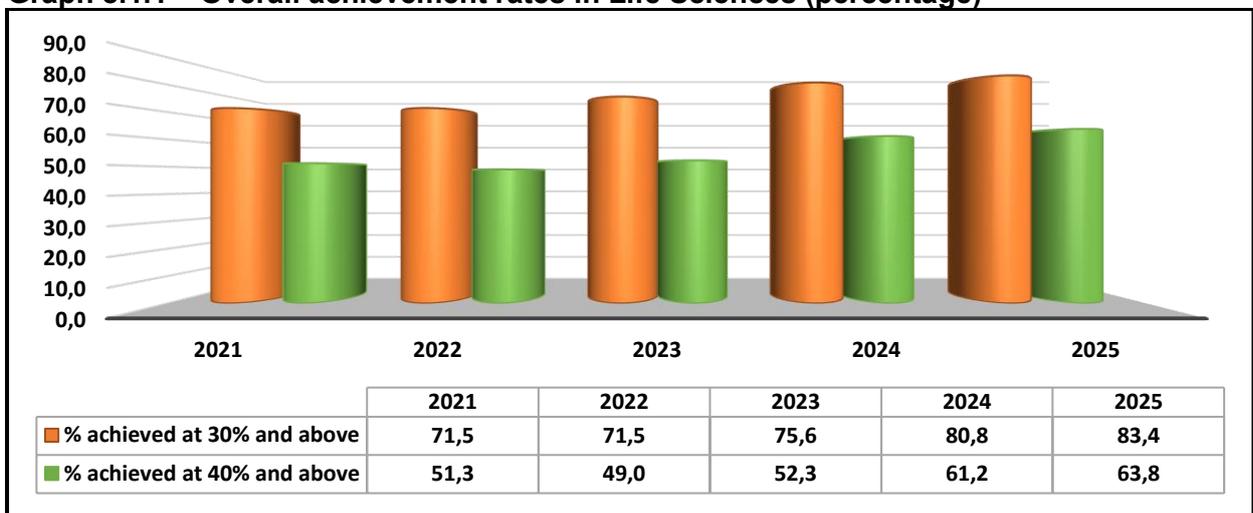
There is a definitive and sustained upward trajectory in the pass rate for Life Sciences from 2021 to 2025. Candidates who passed at the 30% level and above increased from 80,8 % in 2024 to 83,4% in 2025. There was a significant improvement in the pass rate at the 40% level and above over the past two years from 61,2% to 63,8%. There has been a small increase in the distinction rate from 4% in 2024 to 4,1% in 2025, which translates to 382 more candidates receiving distinctions (between 80% and 100%). A total of 15 677 candidates obtained distinctions in 2025 – the highest number achieved since 2021.

Life Sciences is a relatively high enrolment subject and a high pass rate in this subject only bodes well for an increase in the overall NSC pass rate. It is therefore a worthy strategy of provincial and district education departments to focus on interventions for increasing performance in Life Sciences. This appears to have been the case in 2025, since the statistics show that numbers for candidates achieving below 20% is significantly less.

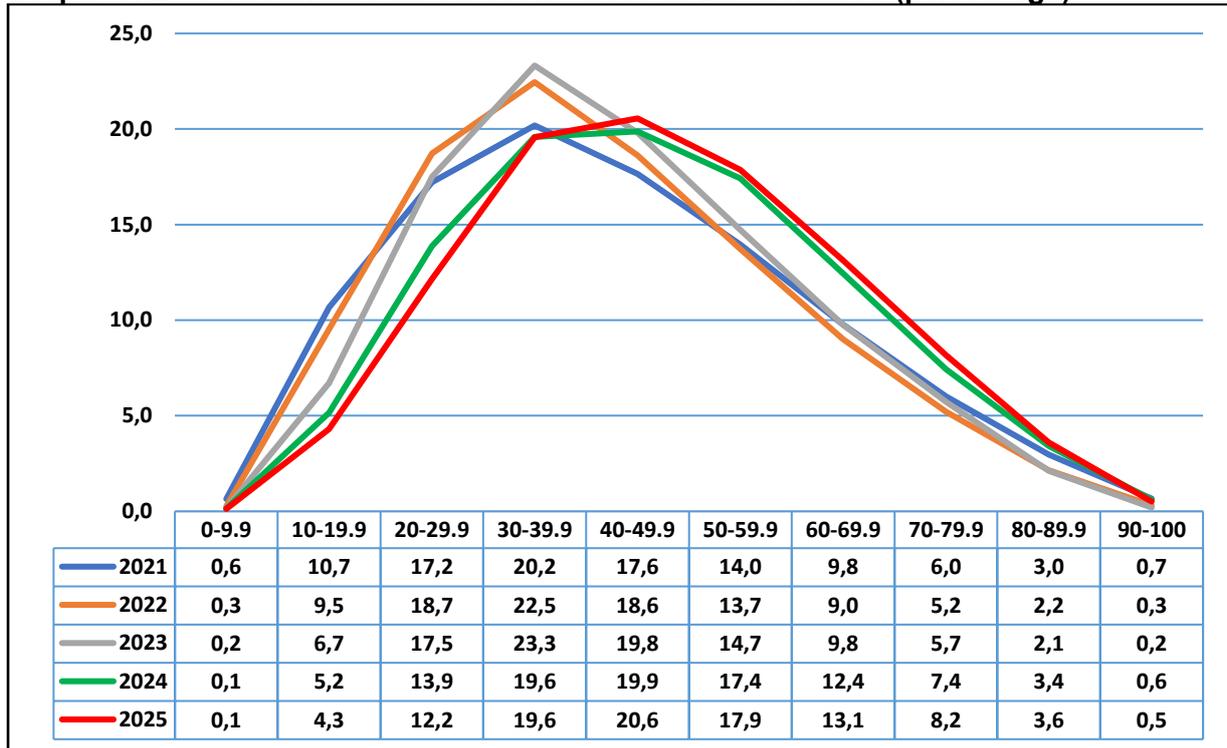
**Table 8.1.1 Overall achievement rates in Life Sciences**

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2021	384 216	274 584	71,5	197 017	51,3
2022	399 007	285 217	71,5	195 620	49,0
2023	379 024	286 708	75,6	198 309	52,3
2024	374 722	302 793	80,8	229 361	61,2
2025	382 379	318 949	83,4	244 105	63,8

**Graph 8.1.1 Overall achievement rates in Life Sciences (percentage)**



**Graph 8.1.2 Performance distribution curves in Life Sciences (percentage)**



**General comments on Paper 1 and Paper 2**

It was encouraging to note that more candidates could relate to the scientific nature of the subject. Even English Second Language candidates could formulate their responses quite close to the expected standard. This upward trend in the quality of responses may be due to improved curriculum delivery, intervention plans by the various provincial education departments and the mediation of previous diagnostic reports by subject specialists. Although most of the candidates were better able to engage with texts, diagrams and data presented in different formats, many fell short of scoring marks in higher-order questions. When there was scaffolding within a question based on source material, candidates scored well in the lower-order questions. This meant that they understood the source material and had the necessary background knowledge, but were unable to apply their knowledge to the new scenario presented. This was especially evident in the questions based on scientific investigations, where candidates were able to extract data directly from the resource, but lacked the necessary skills to analyse, evaluate, apply and synthesise the data. These skills have a higher cognitive demand and may only be acquired through regular practice of higher-order questions. It is imperative that school-based assessments adhere to the CAPS requirement for setting questions across all cognitive and difficulty levels, from Grade 10 onwards.

There was generally a better performance in Section A, since many of the questions were of a lower order. This meant that the candidates have been well taught and were able to understand the work, but appeared to be intimidated by the higher-order questions. Candidates, for example, knew that a grey coloured mouse offspring produced by crossing a black coloured mouse with a white coloured mouse is an example of incomplete dominance, but they could not extend this knowledge when a similar scenario of horses was presented. Candidates knew the function of a particular structure, but were unable to extrapolate the impact of its absence in a physiological disorder.

## 8.2 OVERVIEW OF CANDIDATES' PERFORMANCE IN PAPER 1

### General comments

- (a) It is a positive development that most candidates attempted all the questions in the paper.
- (b) Candidates scored well in Section A, where one-word or single letter responses were required. It was evident from Section B (Q2 and Q3), that candidates knew the content, but had difficulty using the correct scientific terms, explaining ideas in a logical order, and writing clearly. This showed a need for more practice in scientific writing, especially for questions that required explanations, descriptions or the application of knowledge to new situations.
- (c) Candidates also lost credit in some questions because they did not understand the question fully or did not read carefully. This highlights the need to focus on reading and comprehension skills.
- (d) The questions that required the interpretation of data from scientific investigations presented the greatest challenge. Scientific investigations (Q2.5 and Q3.5) were particularly poorly answered, reflecting a void in candidates' understanding of the scientific process. It was apparent that candidates were taught to provide standard responses without looking at the specifics of the particular investigation presented. Candidates also quoted entire phrases directly from the investigation description without extracting only the relevant variables.
- (e) Some candidates lost marks due to incorrect spelling, for example:
- *Evolution* instead of *ovulation* in Q1.2.3
  - *Choroid* instead of *chorion* in Q1.2.6
  - *Auxin* instead of *axon* in Q1.5.2(a)
  - *Multiply sclerosis* instead of *Multiple Sclerosis* in Q1.5.4
  - *Testone* instead of *testosterone* in Q2.2.3
  - *Circular* instead of *ciliary muscles* in Q3.3
- (f) The identification of certain disorders was a challenge for many candidates. The following disorders were tested in this question paper:
- Cataracts
  - Multiple sclerosis
  - Growth hormone deficiency
  - Astigmatism
  - Hearing loss (as an application of hearing)
  - Diabetes mellitus
- (g) Some candidates neglected to bring calculators. This was evident where they managed the steps of the calculation but failed to complete the computation and provide the correct final answer. Some candidates did not have rulers and drew the bar graph freehand, thereby losing credit for 'the equal space and width of bars'. The calculation question requested that candidates include the unit. Many candidates only included the unit in the final answer and not in the preceding steps.
- (h) As indicated in previous reports, the sections on *reproductive strategies* and *plant responses to the environment* were poorly answered. These are relatively short topics, and it appeared as if some teachers merely glossed over them. It is important to

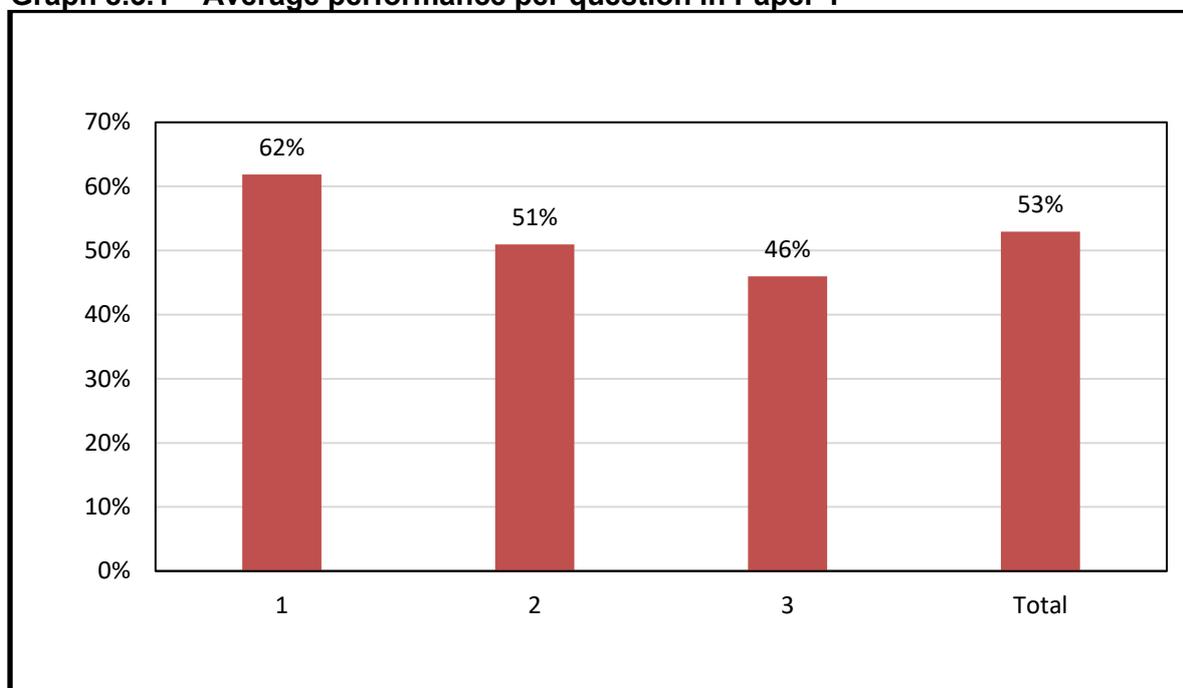
concentrate on these two topics, as they are a compulsory inclusion in the paper for 8 and 13 marks respectively.

### 8.3 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 1

Based on the item analysis, the weakest performance by candidates was recorded in the subquestions on *thermoregulation*, the *scientific investigations (endocrine system and glucose homeostasis)* and the human ear (*balance and hearing*). The question on *neurons* recorded the best performance across all provinces. It appeared that it was not really the content that posed the greatest difficulty, but rather the cognitive demand. The top performing questions were all lower order and those that candidates found challenging were all higher order.

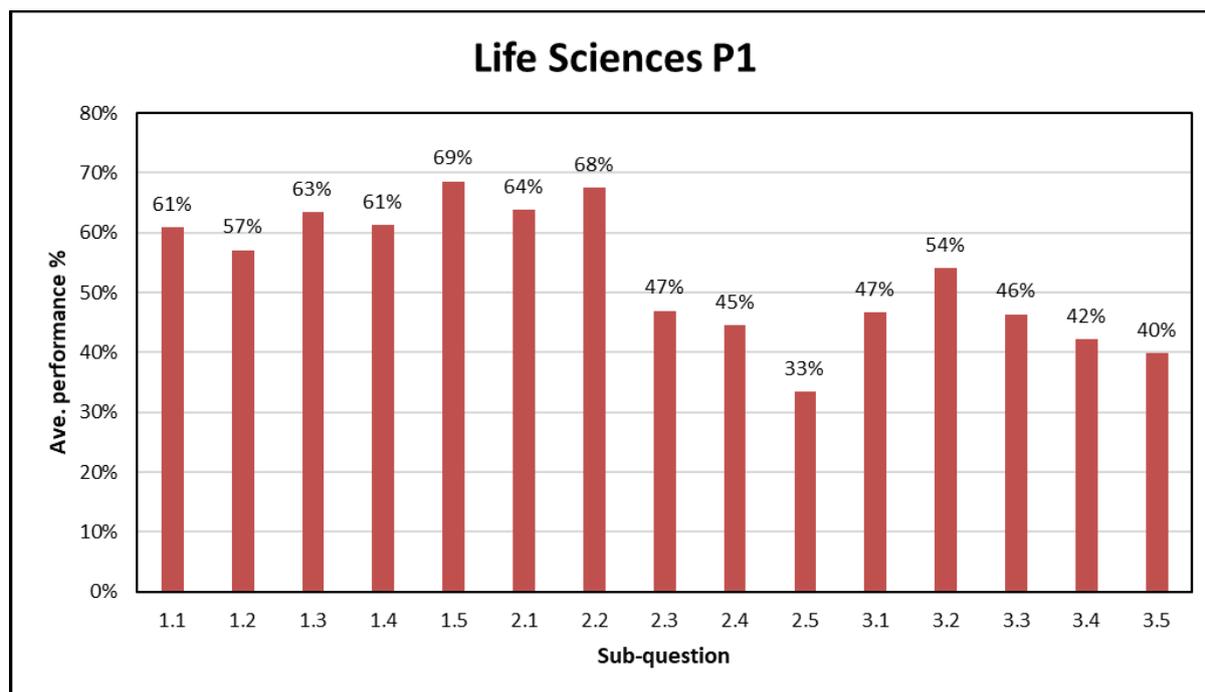
The following graph shows the average candidate performance obtained from the Rasch analysis data across all the provinces. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

**Graph 8.3.1 Average performance per question in Paper 1**



Question	Topic	Ave. performance %
1	Multiple choice, Terminology, Matching items, Responding to the environment (Plants) Responding to the environment (humans)	62%
2	Reproductive strategies, Male reproductive system, Female reproductive system (menstrual cycle), Homeostasis (thermoregulation), Endocrine system (scientific investigation)	51%
3	Human eye (disorder), Human nervous system (brain and reflex arc), Human eye (accommodation) Human ear (Balance and hearing), Homeostatic control of blood glucose levels (scientific investigation)	46%
<b>Total</b>		<b>53%</b>

Graph 8.3.2 Average performance per subquestion in Paper 1



Subquestion	Topic	Ave. performance %
1.1	MCQ	61%
1.2	Terminology	57%
1.3	Matching items	63%
1.4	Plant Growth Responses	61%
1.5	Human Responses (Neurons)	69%
2.1	Reproductive Strategies	64%
2.2	Male Reproduction	68%
2.3	Menstruation	47%
2.4	Homeostasis – Thermoregulation	45%
2.5	Investigation on Growth Hormone	33%
3.1	Eye Defect (Astigmatism)	47%
3.2	Brain and Spinal Cord	54%
3.3	Accommodation (Distant Vision)	46%
3.4	Hearing and Balance	42%
3.5	Scientific Investigation on Insulin Treatment	40%

#### 8.4 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 1

##### QUESTION 1: MULTIPLE CHOICE, TERMINOLOGY, MATCHING ITEMS, PLANT GROWTH RESPONSES, NERVOUS SYSTEM (NEURON STRUCTURE)

##### Common errors and misconceptions

- (a) In multiple-choice questions in Life Sciences, there is only one correct answer. Candidates who gave multiple responses were *not* credited, even if the correct response appeared in their selection.

In Q1.1 candidates performed well except for Q1.1.8, which was a higher-order question which necessitated the analysis of a drawing of an abnormal *sperm*. As always, candidates struggled when they were presented with a new scenario and they had to compare it to something with which they were familiar. Also, the options had two parts, the structure and its function. There were two options that had the correct structure, but only one with the correct associated function. Candidates did not read through the entire phrase and only based their response on the first part, thereby incorrectly choosing option 'B'.

- (b) There has been a noticeable improvement in the section on biological terminology. Spelling in this section was also generally better.
- (c) The following errors are still being encountered in this section where candidates write:
- Q1.2.2 *Astigmatism* instead of *cataracts*
  - Q1.2.3 *Ovulation* or *ovarian cycle* instead of *oogenesis*
  - Q1.2.4 *Yellow spot* instead of *blind spot*
  - Q1.2.5 *Menstrual/Ovarian cycle* instead of *ovulation*
  - Q1.2.6: *Chorionic villi/Amnion/choroid* instead of *chorion*
  - Q1.2.7: *Gibberellins/Auxins* instead of *abscisic acid*
  - Q1.2.8: *Negative feedback* instead of *homeostasis*
- (d) In Q1.3 the description in Column I is stated in the singular but can apply to both items in Column II. Some candidates did not understand this concept. Furthermore, candidates had to use the options provided exactly as they were in the instructions, namely 'A only'; 'B only'; 'both A and B' or 'none'. Candidates who changed the format/wording lost marks.
- (e) The topic in Q1.4 on *plant growth responses* should have been better answered. It is a small section and constituted 13 marks in the question paper. This is almost a guarantee that it will feature in every examination, yet it is overlooked by teachers.
- (f) In Q1.4.1(b), most candidates received only 1 mark; they ignored the mark allocation, thus failing to realise that two responses were required.
- (g) Q1.5 was one of the best answered questions in the paper. Most candidates only lost one mark for using the terms *unipolar*, *multipolar* or *efferent neuron* instead of *sensory neuron* and for not noting the direction of the impulse indicated in the diagram. A number of candidates were not *au fait* with the disorders, and many of them wrote *Alzheimer's disease* instead of *multiple sclerosis*

**QUESTION 2: REPRODUCTIVE STRATEGIES, MALE REPRODUCTIVE SYSTEM, THE MENSTRUAL CYCLE, HOMEOSTASIS – THERMOREGULATION, ENDOCRINE SYSTEM – SCIENTIFIC INVESTIGATION**

**Common errors and misconceptions**

- (a) Q2.1 was based on the relationship between *yolk size*, *precocial* and *altricial development* and the *need for parental care*. The opening sentence in the stem, 'the yolk is the main source of energy for the developing embryo' was crucial in understanding the link between yolk size and the type of *embryo* development. Many candidates did not read the stem and went directly to the data in the table and the questions that followed. This resulted in their being unable to respond correctly. In questions based on data, it was not sufficient that candidates merely provided the

values given, they needed to expand that these were a higher or lower value and they had to state the significance thereof. Some candidates merely said that the value for ducks was 35,4% and did not expand on its significance.

- (b) Q2.2 clearly highlighted the importance of the instruction(s) within questions. In Q2.2.1, candidates were required to *give the letter AND the name of structures*. Many candidates lost marks for only giving either the one or the other and not both.
- (c) Q2.2.2 asked candidates to 'Explain' the role of the *scrotum* in *sperm* production. Too many candidates lost marks for only providing a description and not an explanation.
- (d) Q2.2.3 required candidates to 'name AND describe' the process of *sperm* production. Some candidates looked at the mark allocation and correctly deduced that they had to describe *spermatogenesis*, but they failed to name the process.
- (e) In Q2.2.3 many candidates used the terms *spermatogonia*, *spermatocyte*, *spermatid* and *spermatozoa* when describing *spermatogenesis*. This content was included in the previous curriculum but is no longer required. Educators who are still teaching it are confusing learners who are presenting these terms in an incorrect context. The role of *meiosis* in the processes of *oogenesis* and *spermatogenesis* is crucial. It must, therefore, be emphasised that candidates who did not mention the *diploid* and *haploid* cells were not credited.
- (f) In Q2.3 candidates were once again, presented with a data table from which they had to make inferences. They were asked to EXPLAIN the changes in *endometrial thickness*. Most candidates lost marks because they:
- Only described the change that was represented by the data, without giving reasons for the change;
  - Referred to *gonadotropic hormones*, when the question asked for *ovarian hormones*;
  - Only referred to the role of one of the *ovarian hormones*, instead of both;
  - Wrote 'maintains pregnancy' as a role of the *endometrium*. This is too vague and the specifics must be provided, viz. allowing for implantation of the embryo/development of the placenta/increased blood supply for nutrition of the foetus, etc.; and
  - Were unable to quantify the changes that occurred in the *endometrium*. Candidates had to specify that the *endometrium* became **MORE vascular and MORE glandular**.
- (g) Q2.3.4 required candidates to draw a bar graph. Although there is a definite improvement in candidates' graphing skills, many lost marks by providing an incorrect caption. The data provided was *discontinuous* and *endometrium* thickness was given for specific days only. Many candidates erroneously wrote that the data was over the 28-day cycle. Some candidates also lost marks for:
- Not labelling day 0 on the X axis;
  - Using a range on the X-axis instead of specific values;
  - Not using a ruler and therefore drawing irregular width bars and spaces.
  - Transposing of the axes; and
  - Not indicating units on the label of the Y-axis.
- (h) Some candidates confused the question with the *pupillary mechanism* of the *iris* in Q2.4. This points to the issue of candidates not reading the stem of the question which clearly stated that the diagrams represented *arterioles* in the skin during

*thermoregulation*. Candidates who lost marks in Q2.4.3 included the description of the *sweat gland* as well, which was irrelevant in this context.

- (i) Candidates lost marks in Q2.4.3 when they failed to include the essential word 'more' in their description of blood flow to the skin and heat lost. Blood normally does flow to the skin, but on a hot day, *more* blood flows to the skin. This is a crucial concept that is often overlooked.
- (j) Questions based on scientific investigations are generally pitched at cognitive levels C and D. Candidates lost marks in Q2.5 because they lacked the skills of *application*, *analysis*, *evaluation* and *synthesis*. Candidates lost marks in:
- Q2.5.1 and Q2.5.2 when they could not correctly identify a variable. They wrote 'average height', instead of 'height'; '2 years old' instead of 'age';
  - Q 2.5.3 where they gave generic explanations, rather than using the specific data for this investigation;
  - Q2.5.4 for not including the unit of measurement, or including an incorrect unit, even though it was requested in the question. Also, some candidates expected the answer to be a percentage, as it had been in previous years, therefore, they included 'x100' in their calculations.
  - Q2.5.5 they were unable to correctly write a conclusion that included both variables and that was based on the results of the investigation. They also incorrectly stated 'growth hormone' instead of 'added growth hormone'.

**QUESTION 3: EYE DISORDER (ASTIGMATISM), BRAIN AND REFLEX ARC, HUMAN EYE (ACCOMMODATION), HUMAN EAR (BALANCE AND HEARING), SCIENTIFIC INVESTIGATION ON INSULIN AND BLOOD GLUCOSE LEVELS**

**Common errors and misconceptions**

- (a) Some candidates lost marks in Q3.1.1 (a) for:
- The incorrect spelling of *aqueous*, even though the phonetically correct spelling was credited;
  - Writing *vitreous* instead of *aqueous*, and
  - Responding with *aqueous fluid* instead of *aqueous humour*.
- (b) In Q3.1.2 candidates lost marks for being unable to provide an adequate description of the appearance of the *astigmatic cornea*. Description is an important scientific skill, and candidates were meant to link their understanding of *astigmatism* to the diagram shown.
- (c) Candidates lost marks in Q3.1.3 because they:
- Confused *refraction* and *reflection*;
  - Confused *astigmatism* with *cataracts*; and
  - Were unable to make the link between an unevenly shaped *cornea* and the effect on vision. This question was inadvertently asking the function of the *cornea* by asking what happened when it had an abnormal shape.
- (d) In Q3.1.4 many candidates lost marks for indicating the treatments for *short-sightedness*, *long-sightedness* or *cataracts*. This reinforced the observation that sections on disorders, their causes and effects were not properly understood.
- (e) Candidates who lost marks in Q3.2.1, did not write the full name of the *nervous system*, i.e. *central nervous system*. They only wrote the word 'central'.

- (f) Q3.2.2 was a lower-order question based on the *reflex arc* and taken directly from the *Examination Guidelines*. Despite this, many candidates lost marks because they:
- Referred to the *dorsal* and *ventral roots* as being part of the *spinal cord* instead of the *spinal nerve*;
  - Did not refer to the transmission of an *impulse* but rather mentioned that the *stimulus* was transmitted; and
  - Failed to refer to the *synapses* and *effector*.
- (g) Q3.3 was also pitched at a lower-order cognitive level. Candidates lost marks for this question when they:
- Confused *accommodation* with the *pupillary mechanism*;
  - Stated that the suspensory ligaments *contract* instead of 'become taut' – ligaments cannot *contract*, only muscles can;
  - Confused *ciliary* and *circular* muscles;
  - Wrote accounts for both near and distant vision since only the first one was marked; and
  - Referred to 'less light being *refracted*' (amount of light) instead of 'light is *refracted less*' (degree of refraction).
- (h) Many candidates lost marks in Q3.4.2 for referring to both the *cristae* and the *maculae* as being stimulated by a change in speed and direction of head movement. Candidates also lost marks for:
- Not indicating that the *cerebellum* sends an impulse to the *skeletal muscles* to restore balance; and
  - Referring to the *auditory canal* instead of the *auditory nerve*.
- (i) Q3.4.4 was poorly answered by many candidates. This question had a higher cognitive demand, and candidates could not apply their knowledge of the hearing process to a new scenario where there is hearing loss. Candidates used colloquial language instead of scientific language. They mentioned the noise or sound entering the ear, but did not show an understanding of how sound waves entered the *auditory canal* and were converted into *vibrations* as they moved through the middle ear and *pressure waves* as they moved through the inner ear.
- (j) In Q3.5.1 some candidates identified cells (*Islets of Langerhans*) instead of the organ (*pancreas*) that secretes insulin.
- (k) Q3.5.3 was one of the worst answered questions in the paper. This question required candidates to derive two conclusions from a graph and then tabulate the differences between the two conclusions. This question was pitched at a higher cognitive level, with a high degree of difficulty. The differences or comparisons that were given, did not always correlate correctly. Furthermore, candidates lost marks because they:
- Referred to *glucose* levels rather than *insulin* levels;
  - Described *insulin* levels at specific times rather than the overall effect of the treatment;
  - Described that the *insulin* lasted a long time for long-acting and acted quickly for rapid-acting *insulin* – this was a description of the type of *insulin*, not differences in the effect of the treatment; and
  - Did not understand the investigation and its results.
- (l) In Q3.5.5 candidates failed to predict the effect of *insulin* on already low blood *glucose* levels. They wrote that *glycogen* is converted to *glucose* instead of *glucose* being converted to *glycogen*. Candidates also incorrectly wrote *glucagon* instead of *glycogen*. Candidates could not make the link between low *glucose* levels and *cellular*

*respiration*, which showed a poor understanding of the homeostasis of blood glucose levels.

### Suggestions for improvement on teaching content and concepts for P1

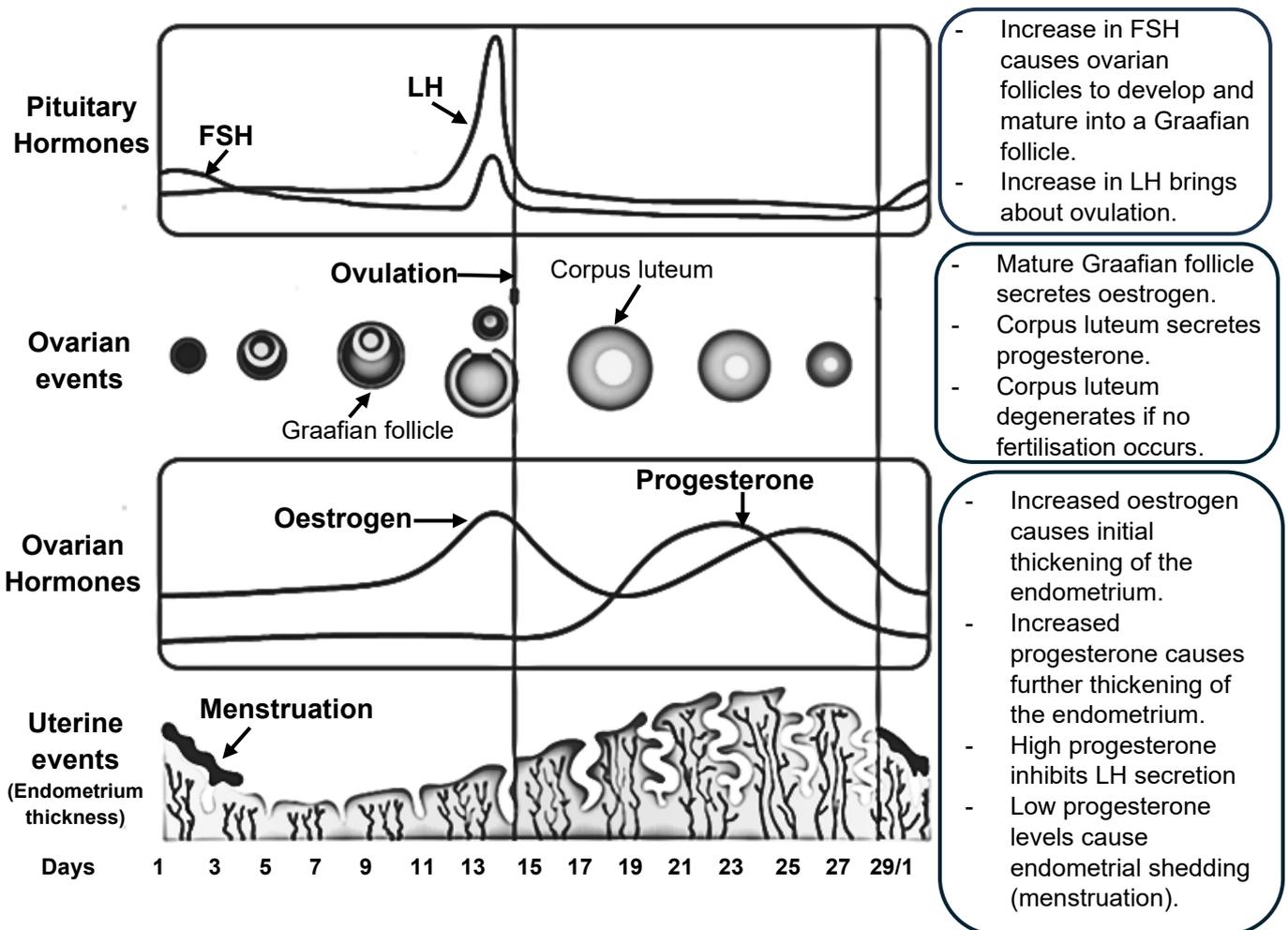
- (a) A basic premise in Life Sciences is the relationship between structure and function. Reference is made to *structural suitability*. Educators must emphasise the importance of structures for their functions. Every Life Sciences assessment must have at least one question based on structural suitability. These are best taught using annotated diagrams where each labelled structure has its associated function indicated. Furthermore, learners must also develop the skill of predicting the outcome if the structure is dysfunctional or absent.
- (b) To improve performance in the topic on plant growth substances, teachers must understand the mechanics of the various plant 'hormones' and their effects. There are only three hormones to be covered and three growth responses. This topic also lends itself well to practical activities and relatable scientific investigations and teachers must mediate these with learners
- (c) Learners must be made aware that diagrams may not always appear as they are in their textbooks. A case in point is Q1.4 where the direction of the *impulse* is shown as right to left, whereas some textbooks show it as left to right. Learners need to acquire the skill of analysing the entire source material for relevant details. Important information is also given in the stem of the question, which candidates often overlook.
- (d) The Life Sciences curriculum requires that learners know some of the disorders that can occur when studying the relevant topics. This examination required learners to know the cause and/or effect of at least at least four disorders. The subtopic of disorders usually comes at the end of a topic, and educators only mention them, without going into the details of their mechanics. Examiners often use a disorder to test the candidates' understanding of how a system *normally* works, e.g. the role of the *cornea* becomes more evident when there is a disorder of the *cornea*. Teachers should apply the following format:
  - (i) Identify the structure;
  - (ii) Identify its function;
  - (iii) How is the function affected when the structure is damaged? and
  - (iv) How may the disorder be treated/corrected?
- (e) Learners must be made aware that when tackling data-response questions, merely extracting data from the text may not always be sufficient. Further elaboration and explanation must be given.
- (f) When setting school-based assessments, teachers and subject specialists must include questions that:
  - Have two requirements in the response, viz. the letter and the name OR the name and the description; and
  - Require explanations rather than straightforward descriptions.
- (g) Learners must be made to understand the difference in the various instructional verbs. One of the greatest challenges in Life Sciences are questions that require an explanation. Learners must be informed that *Describe* means 'how something happens' whereas *Explain* means 'how something happens AND why it happens' Learners must develop the habit of underlining the instructional verb as they read a question.
- (h) Many processes are described in the *Examination Guidelines*. Learners would be less confused if these descriptions are taught, rather than the ones in some textbooks that

give too much detail. The *Examination Guidelines* and *CAPS* documents serve to elaborate on the scope of the Grade 12 Life Sciences curriculum. Going beyond its prescripts may sometimes confuse learners.

- (i) When teaching the *menstrual cycle*, teachers must show that it comprises the *ovarian cycle* and the *uterine cycle* and the roles of the various hormones on both. This section cannot be taught without showing graphs of the different hormone levels, their relationship with the *ovaries*, their origin and their effect on the *endometrium*. Teachers must use these graphs to explain the changes that occur throughout a 28-day *menstrual cycle*.

The following depiction may assist with teaching this section.

**NOTE:** This is only a summary, and not all events of the menstrual cycle have been included.



- (j) Learners need to understand that they must base their answers on the given resource as it may be based on a new scenario, e.g. *ovulation* generally occurs around day 14 of the female *menstrual cycle*, but the data provided may suggest a different day for *ovulation*.
- (k) In physiological processes, it is crucial that candidates quantify a process, e.g. MORE blood flows, LESS water is excreted, HIGHER progesterone levels, etc. Teachers need to explain to learners, for example, that under normal conditions there is blood flow, but when environmental temperatures increase then there is MORE blood flow to the skin. This cannot be overlooked during marking, as it is a clear representation of the candidate's understanding.

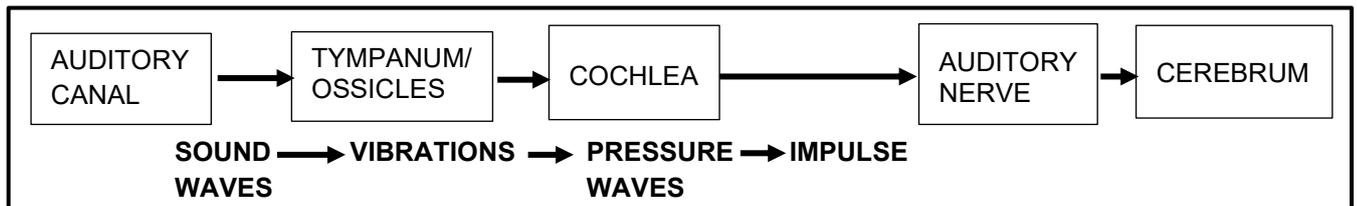
- (m) Teachers should strengthen graph-drawing skills in Grades 10 and 11 by exposing learners to all the graph types in both formal and informal assessments. Providing a caption for the data shown is categorised as a cognitive level C skill and it is understandable why many learners do not score this mark. Learners must be trained that the caption should:
- Include both variables;
  - Speak directly to the data presented; and
  - Identify for which country, year, etc. the data is representative.
- (l) Working through past papers is a good examination preparation technique. This, however, does have its downside when candidates predict or pre-empt what they think the question is asking. As soon as candidates see the word *thermoregulation* they launch into a marking guideline answer of a previous question paper. Learners must be trained to always check the context and resource provided for the question.
- (m) Learners need to practise questions based on scientific investigations, but most importantly must understand the investigation design of each new investigation that they encounter. They must understand *why* each step is carried out and *why* specific measurements are taken. They must also know that simply rewriting the steps of the procedure may not necessarily answer the question.
- (n) Learners must be shown that the format for listing a variable is to identify what is being measured or enumerated. In Q2.5.1 it is the *height* that is measured and NOT the *average height*. In of Q2.5.2 the *age* is the variable and NOT *two-year-old boys*. Although concessions were made in the past, the way forward is for the candidate to identify the variable and not describe a step in the procedure.
- (o) When doing calculations, learners must be cautioned to always include all the steps necessary and to include the relevant units in each step as well as in the final answer.
- (p) Teachers must show candidates, using everyday examples, that the conclusion must link to the aim of the investigation and be deduced from the results provided. The very same variables that are stated in the aim, must appear in the conclusion.
- (q) Learners must be trained to provide full names when asked, e.g. if the question asked for the name of a branch of the nervous system, candidates cannot merely respond with the word *central* and expect to be credited. Even though 'nervous system' is included in the question, the complete name must be given, i.e. *central nervous system*.
- (r) Questions that require descriptions, e.g. *the reflex arc* and *accommodation*, may appear simplistic. Learner performance, however, is not as expected because there is not enough attention being paid to the specifics of the subject. The following concepts must be reinforced:
- The *dorsal* and *ventral roots* are branches of the *spinal nerve*;
  - An *impulse* is transmitted along the structures of the *reflex arc*;
  - A clear image is formed when light is *focused* on the *retina* and not when light *falls* on the retina;
  - The difference between a *ciliary body* and a *ciliary muscle*;
  - The difference between a *ciliary muscle* and a *circular muscle*; and
  - The differences between *accommodation* and the *pupillary mechanism*. This may be done using a table of comparison like the one below:

	<b>ACCOMMODATION</b>	<b>PUPILLARY MECHANISM</b>
<b>RESPONSE TO:</b>	Distance of object	Light intensity
<b>RESPONSE BY:</b>	Ciliary muscles	Circular and radial muscles
<b>CAUSES:</b>	Lens shape to change	Pupil diameter to change
<b>AFFECTS:</b>	Light refraction	Amount of light entering the eye
<b>RESULTS IN:</b>	Clear image on the retina	Prevention of damage to retina/ clear vision in the dark

- (s) The section on the role of the ear in balance is not well understood by some teachers and many learners. This content must be clarified during teacher development and resource sharing. Once again, separating the different mechanisms in a tabular form helps with consolidation. The following table may be used:

<b>STIMULUS</b>	<b>RECEPTOR</b>	<b>TRANSMITS IMPULSE</b>	<b>PART OF THE BRAIN</b>	<b>EFFECTOR</b>
Change in Head Position	Maculae	Auditory nerve	Cerebellum	Skeletal muscles
Movement (change in speed & direction)	Cristae			

- (t) Teachers need to clarify the different forms of sound transmission in the ear. The following flow diagram shows the mode of transmission across some of the structures involved in hearing:



- (u) Learners should be reminded to refer to the *cochlea* when describing the hearing process and not the *inner ear* as not all parts of the inner ear are involved in hearing.
- (v) Teachers must provide learners with opportunities to tabulate differences and reiterate that the items in each row must correspond. If a feature is mentioned in the first column, there must be a corresponding corollary in the same row of the second column.
- (w) Learners must be exposed to sufficient activities that require *analysis*, *interpretation* and *evaluation* of *complex* graphs. Graphs are usually a visual presentation of investigation results, and it is imperative that learners can make deductions and draw conclusions from them.
- (x) Topics like the *homeostasis* of blood glucose levels that are taught in Grade 11 must be revised and reinforced in Grade 12. The relationship between *glucose* and *glycogen* and the role of the two hormones *insulin* and *glucagon* must be explained. Application-type questions on the aforementioned relationship should be included in activities.
- (y) Ensure conceptual understanding of the scientific process. Learners can only master the answering of questions based on scientific investigations by understanding the scientific process and not through the memorisation of so-called shortcuts. Learners must know that each investigation design is unique. They must be able to inter alia:
- Identify *planning* steps;
  - Identify *independent*, *dependent* and *controlled variables*;

- Provide reasons for *investigative design methodology*;
- Understand *the role and design of the control*;
- Draw *conclusions* from results; and
- Understand the differences between *reliability* and *validity* and their related improvement strategies.

## 8.5 OVERVIEW OF CANDIDATES' PERFORMANCE IN PAPER 2

### General comments

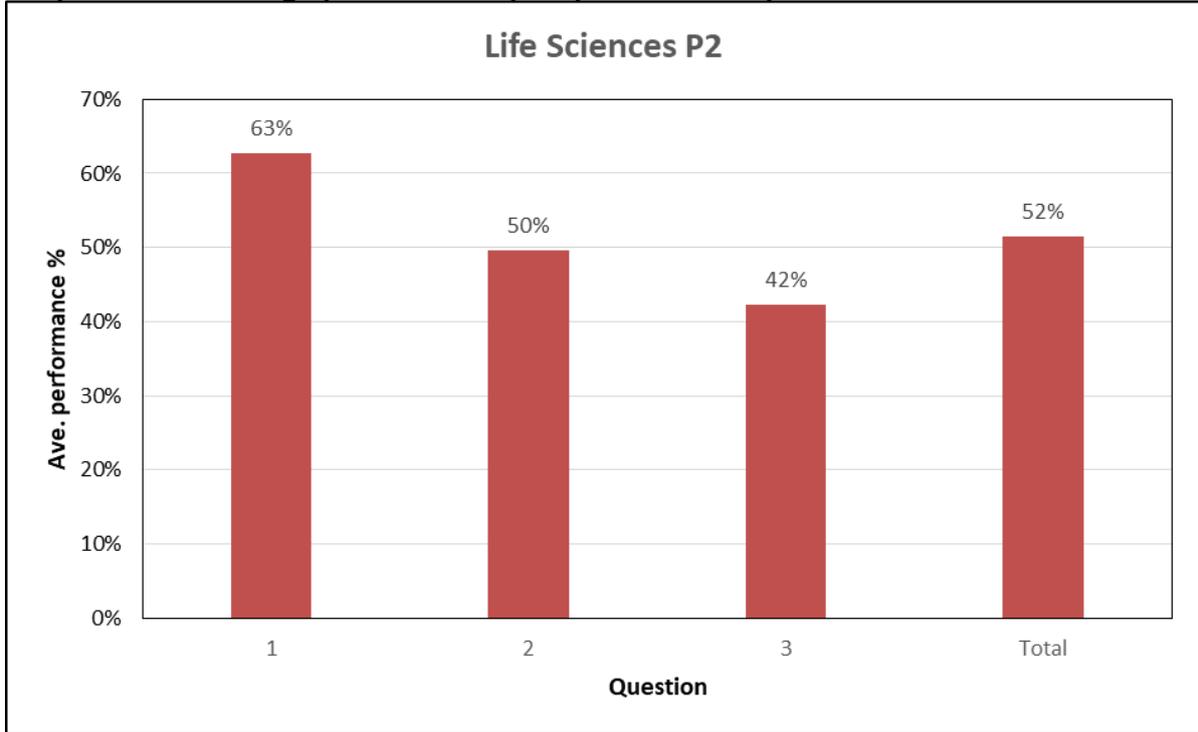
- Many of the errors and misconceptions that presented themselves in candidates' responses in the November 2025 examinations have been highlighted in previous diagnostic reports. This indicates that this document is not being used as a remedial tool.
- Precision (accurate) teaching is essential in Life Sciences especially when terminology, processes and scientific investigations are involved.
- Candidates must be taught to give full answers when terminology requires them to do so, e.g. they only write *stem* for *stem cells*; *variation* for *genetic/continuous variation*, etc. No marks are allocated for incomplete answers.
- In many cases, teaching in Grade 12 only focuses on *meiosis I* and *meiosis II*, which results in gaps in learners' understanding of *mitosis*. Teachers should follow the *Examination Guidelines* and attend to topics highlighted for revision from previous grades such as *mitosis* in Grade 10. Proper revision of the *phases of mitosis* is essential and clear differentiation between *meiosis II* and *mitosis* must be emphasised.
- Learners need to be informed not to use the terms *homozygous* and *heterozygous* when describing the phenotypes in a genetic cross. Also, that only the smallest ratio will be marked correctly, if requested in the question.
- Poor performance is still evident in questions based on scientific investigations despite the support provided in the diagnostic reports of previous years. Scientific method practice should be embedded throughout the curriculum in Grades 10 to 12.
- The following topics in Paper 2 also appeared not to have been taught well, either due to lack of teacher development or due to infrequency of testing in previous examinations:
  - Meiosis;
  - DNA Profiling;
  - Human Evolution;
  - Speciation and Biogeography; and
  - Scientific investigations.

## 8.6 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

Based on the item analysis, the weakest performance by candidates was recorded in the subquestions on *Meiosis*, *Human Evolution*, *Speciation and Biogeography* and *Scientific investigations*.

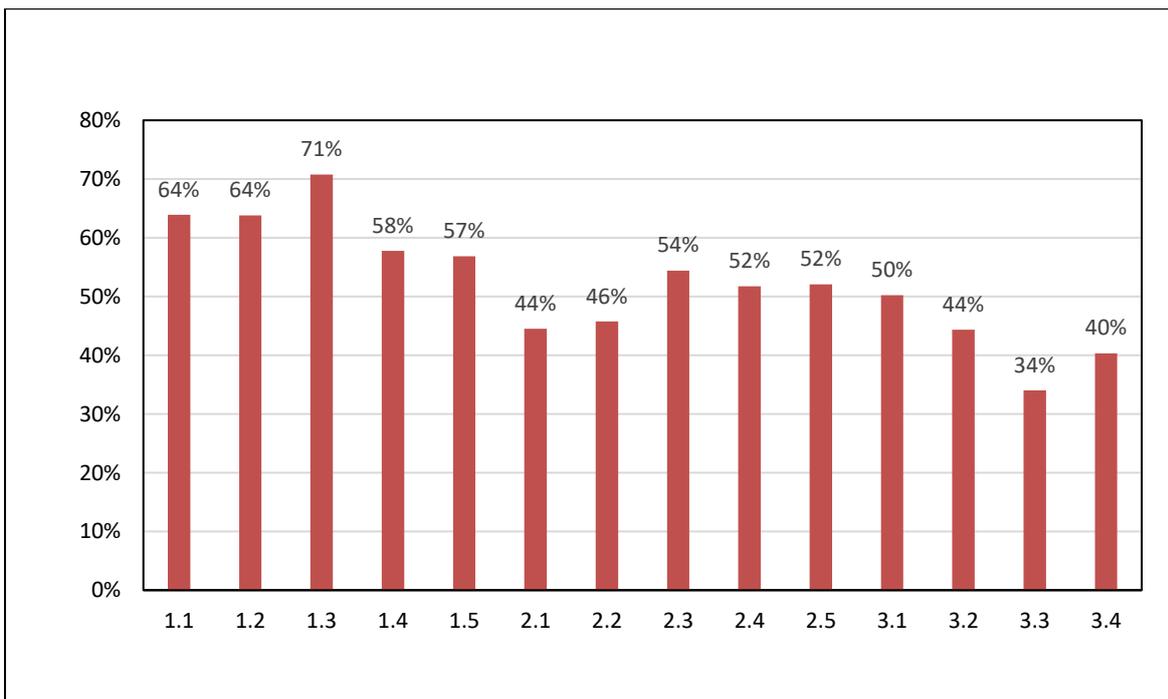
The following graph is based on data from a random sample of candidates' scripts. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

**Graph 8.6.1 Average performance per question in Paper 2**



Question	Topic	Ave. performance %
1	MCQs, Terminology, Matching, Meiosis, Protein synthesis	63%
2	DNA Code of Life, Meiosis, Genetics	50%
3	Evolution	42%
<b>Total</b>		<b>52%</b>

**Graph 8.6.2 Average performance per subquestion in Paper 2**



Subquestion	Topic	Ave. performance %
1.1	Multiple Choice	64%
1.2	Biological Terms	64%
1.3	Matching	71%
1.4	Meiosis and Mitosis	58%
1.5	Translation	57%
2.1	Meiosis	44%
2.2	DNA Profiling	46%
2.3	Pedigree Diagram	54%
2.4	Blood Groups	52%
2.5	Incomplete Dominance	52%
3.1	Human Evolution – Anatomical Features of Humans and Apes	50%
3.2	Human Evolution – Hominid Fossils	44%
3.3	Biogeography – Speciation	34%
3.4	Investigation – Natural Selection	40%

## 8.7 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 2

### QUESTION 1: MULTIPLE-CHOICE, TERMINOLOGY, MATCHING ITEMS, MITOSIS AND MEIOSIS, TRANSLATION (PROTEIN SYNTHESIS)

#### Common errors and misconceptions

- (a) Most candidates performed well in Q1.1, except in Q1.1.7, Q1.1.9 and Q1.1.10.
- In Q1.1.7 many candidates had difficulty in providing the correct combination of nitrogenous bases during *DNA replication*. They could not use the complementary strand on the left to determine the strand on the right and the new template.
  - In Q1.1.9 a number of candidates were unable to determine the possible genotypes in the given *dihybrid cross*.
  - In Q1.1.10 many candidates could not apply their knowledge of *sex-linked inheritance* to a disorder caused by a *dominant allele*.
- (b) In Q1.2 some candidates lost marks because they:
- Confused *mitochondria* with *mitochondrial DNA* in Q1.2.2;
  - Wrote *stem cell research* or only *stem* instead of *stem cell* in Q1.2.3;
  - Used incorrect terms such as *helix* or *double stranded* instead of *double helix* when describing the shape of the DNA molecule in Q1.2.5;
  - Wrote *uitwisseling* instead of *uitsterwing* in Q1.2.6 (Afrikaans-medium candidates);
  - Could not distinguish between *discontinuous* and *continuous variation* in Q1.2.7 – they only wrote the words *discontinuous* or *continuous* without *variation* which is not a biological term; and
  - Incorrectly answered *locust* instead of *locus* for the position of an allele on a chromosome in Q1.2.10.
- (c) Most candidates performed well in Q1.3.

- (d) In the *2024 Diagnostic Report*, it was indicated that a significant number of marks in Paper 2 are allocated to the topic *meiosis*. Although teaching tips were provided, some candidates had difficulty in answering the questions on this topic in Q1.4. Candidates lost marks in:
- Differentiating between a *cell membrane* and *nuclear membrane* in Q1.4.1(a);
  - Identifying the different *phases of mitosis* and *meiosis* in Q1.4.2;
  - Assuming the cell referred to was human instead of looking at the diagram provided and counting the number of chromosomes in the given diagrams in Q1.4.3(a) and (b). They therefore gave incorrect answers of 46 and 23 chromosomes respectively.
- (e) Some candidates still confused *translation* with *transcription* in Q1.5.1(a). In Q1.5.2(b) many candidates could not work backwards by first determining the *tRNA anticodon* complementary to *codon* number 4 and then deduce the *DNA triplet* complementary to *codon* 4.

## QUESTION 2: MEIOSIS, DNA PROFILING, PEDIGREE DIAGRAM, BLOOD GROUPS, INCOMPLETE DOMINANCE

### Common errors and misconceptions

- (a) Q2.1 ranked as the second lowest scoring question in the paper and proved to be challenging for candidates because:
- Some candidates described the process of *crossing over* rather than stating its importance. They often referred to *variation* instead of *genetic variation* in Q2.1.4(c). Also, they explained the exchange of genetic material, which describes the process rather than its importance in increasing genetic variation;
  - In Q2.1.5 many confused a *single chromosome* with a *single-stranded chromosome*; and
  - Many failed to read Q2.1.6 with comprehension and as a result confused non-disjunction of *gonosomes* with non-disjunction of *autosomes*. They were unable to apply their understanding of *abnormal meiosis* to a new scenario. Although the question focused on *sex chromosomes*, they gave an account of the inheritance of *Down's syndrome/Trisomy 21*.
- (b) A few subquestions in Q2.1 proved to be challenging for candidates because:
- They referred to *DNA* and *DNA sample* instead of *DNA bands* or *DNA profile* in Q2.2.3; and
  - In Q2.2.5, most learners could not explain the process used to determine *paternity* and how *DNA profiling* was applied. They only explained matching DNA profiles of the father and the child. They failed to explain that the DNA profiles/bands of both parents must be compared with that of the child.
- (c) In Q2.3.3(a) some candidates did not use the key provided in the *pedigree diagram*. The key clearly stated *female with CADASIL*, yet some candidates wrote *female with defect* instead of naming the specific condition as shown in the key. In Q2.3.3(b) some candidates used *sex-linked alleles* while this question was clearly about an *autosomal genetic disorder* as indicated in the stem of the question. In Q2.3.4 many candidates failed to use the *phenotypes* and *genotypes* of individuals 1 and 2 and their children to explain why they were *heterozygous*. They described the phenotypes of the individuals in the pedigree diagram again using the words *affected* and *unaffected*, thus earning no marks. Some candidates also used individual 7 in their explanation, which was incorrect.

In Q2.3.5 candidates gave incorrect percentages (98%, 100%, 75%) instead of the expected probability.

- (d) Q2.3.4 was poorly answered by many candidates who referred to the inheritance of a *blood group* rather than to the inheritance of an *allele* and described a *dominant blood group*, rather than a *dominant allele*. Candidates failed to describe the inheritance of *alleles* from both parents and also used the incorrect notation for the *alleles* and lost marks for this.
- (e) Q2.4 showed varied candidate performance across the subquestions. Some candidates lost marks in:
- Q2.4.2 – incorrect notations given for the genotype of blood group B such as  $i^B i$ ,  $i^B i^0$ ,  $i^B i^B$ , despite this being explained in the *2024 Diagnostic Report*;
  - Q2.4.4 – many candidates could not explain the inheritance of blood group AB. They incorrectly stated that a child 'receives blood group A from one parent and B from the other' instead of explaining that the child inherits the  $I^A$  *allele* from one parent with *blood group A* and the  $I^B$  *allele* from the other parent with *blood group B*.
- (f) Q2.5 assessed learners' understanding of *incomplete dominance* where neither allele is completely dominant, resulting in an intermediate phenotype. Candidates lost marks because they:
- Confused *incomplete dominance* with *co-dominance* in Q2.5.1 and Q2.5.2. Although some gave the definition for incomplete dominance, they did not apply it to the example in the question. Furthermore, they explained the inheritance too generally, stating only that 'neither allele is dominant' without referring specifically to the *cream-colour allele*, the *chestnut-colour allele*, and the resulting intermediate *golden phenotype*;
  - Candidates wrote *genetic engineering* in Q2.5.3(a) instead of *artificial selection* or *selective breeding*. Some candidates incorrectly wrote *artificial breeding* instead of *artificial selection*;
  - Many candidates did not include *coat* in their answer to Q2.5.3(b) and therefore lost both marks, e.g. they wrote *cream-coloured horse* instead of *cream-coloured coat*. Some candidates included *homozygous* or *heterozygous* in their answer which is incorrect since it refers to the *genotype* and not the *phenotype*; and
  - A number of candidates did not give the smallest ratio in Q2.5.4. Errors included ratios which were not simplified (2:2), incorrect ratios (1 : 1 : 1 : 1 or 4 : 4), or the omission of the ratio. Some mislabelled  $P_1$  and  $F_1/F_2$  generations or wrote *fusion* instead of *fertilisation*. Again, some candidates included *homozygous* or *heterozygous* when stating the  $P_1$  and/or  $F_1$  phenotypes in the genetic cross. Some candidates used the incorrect letters instead of using what was given in the question or using the incorrect notation e.g.  $C^A C^G$ .

### QUESTION 3: HUMAN EVOLUTION, BIOGEOGRAPHY, SCIENTIFIC INVESTIGATION

#### Common errors and misconceptions

- (a) In Q3.1.3 most candidates could state the characteristic, e.g. *S-shaped spine* but failed to explain the significance of the characteristic for *bipedalism*. If a reason was provided, it was incorrectly stated, e.g. 'the S-shaped spine allows an upright posture' instead of 'better distribution of body weight/to absorb shock/allow flexibility'. Incomplete descriptions were given, e.g. the *foramen magnum* in 'a forward position' instead of 'a more forward position', 'a short and narrow pelvis' instead of 'short and wide' were given.

- (b) A few subquestions in Q3.2 proved to be challenging for some candidates because:
- They incorrectly wrote *Miss Ples* instead of *Mrs Ples* and *Taung* instead of *Taung child* in Q3.2.2;
  - In Q3.2.4 some candidates were unable to calculate the percentage increase and could only get the 1 mark for  $x 100$ . Some incorrectly stated  $x 100\%$  instead of  $x 100$  and did not round the answer off to two decimal places, as instructed in the question;
  - Many referred to the *skull* instead of the *cranium*, failing to link cranial capacity to brain volume in Q3.2.5. Many responses simply stated 'measure the cranium' without explaining how this relates to determine brain volume. They also failed to mention that the cranium houses the brain in their explanation; and
  - In Q3.2.6 many candidates simply referred to 'intelligence' without explaining that 'increased brain volume' results in 'greater intelligence'; and, instead, linked it to advanced tool usage, language development or complex social behaviour.
- (c) Q3.3 showed the worst performance in the question paper. It required the interpretation of reproductive isolation mechanisms in flightless birds, biogeography and the theory of evolution. The challenges faced in each subquestion are listed below.
- In Q3.3.1(a) many candidates confused the term *biological species* with the definition for *population*. Many wrote *a group of species that can interbreed and produce fertile offspring*. Some candidates referred to *viable offspring* instead of *fertile offspring*.
  - In Q3.3.1(b) most candidates gave the first part of the answer but omitted the second, i.e. organisms cannot interbreed.
  - In Q3.3.3 many candidates did not link *biogeography* to *speciation*, even though the two concepts must be explained together. Many responses failed to mention that continental drift separates original populations. Most candidates gave a general description of *speciation* as they were unable to apply their knowledge to the example provided in the question.
- (d) The scientific investigation questions in Q3.4 was pitched at a high cognitive demand level. Most candidates found the analysis and evaluation of the procedure and the subsequent results to be difficult. The challenges faced in each subquestion are listed below:
- Many candidates lost a mark in Q3.4.1 for writing the *independent variable* as the *effect of food availability* instead of *the availability of food*. The *effect* referred to the *dependent variable* (starvation resistance).
  - Q3.4.2 was poorly answered. Many candidates only wrote *time taken for flies to die* and omitted *80% of the flies and die from starvation*.
  - Many candidates lost marks in Q3.4.4 as they mentioned both *validity* and *reliability* in their answer. This indicates their inability to differentiate between the two concepts. Many candidates could not explain why the investigation was valid, instead they wrote the aim of the investigation.
  - In Q3.4.5 many candidates answered the question in terms of starvation resistance rather than the time until death, thus stating a conclusion rather than describing the results. They also used the incorrect range to indicate hours until death for each generation, thereby losing marks.
  - In Q3.4.6 many candidates provided generic responses for Darwin's theory of *natural selection* rather than applying it to the given scenario.
  - Marks were lost when candidates:
    - Failed to mention that the variation occurred in a population of fruit flies, or in the offspring of fruit flies;
    - Failed to describe the variation in the fruit flies and gave incorrect descriptions of starvation resistance, some using the term *hunger resistance*;

- Stated that the characteristic of starvation resistance was passed onto offspring rather than the *allele* for starvation resistance; and
- Stated that fruit flies with starvation resistance increased in the next generation instead of the next generation had a higher proportion of fruit flies with starvation resistance.

### Suggestions for improvement on teaching content and concepts for P2

- (a) Teachers can use hands-on models (DNA base-pairing cards or beads) to reinforce the formation of the complementary strand when teaching *DNA Replication*.
- (b) Dihybrid crosses should be taught by using *Punnett squares*. The difference between *genotype* and *phenotype* should also be emphasised.
- (c) There is a misconception that disorders are only caused by *recessive alleles*. Teachers need to incorporate disorders caused by both *recessive* and *dominant alleles* during teaching. Furthermore, teachers must include case studies or real-life examples (genetic conditions) to contextualise learning in daily activities. They must also encourage learners to draw family pedigree diagrams to visualise inheritance patterns.
- (d) At school level, teachers should mark spelling very strictly to ensure that learners become accustomed to spelling correctly.
- (e) Teaching and learning of *mitosis* and *meiosis* must include diagrams with different chromosome numbers so that learners can apply their knowledge of the effect of the two types of cell division on the chromosome number of cells.
- (f) Teachers should follow the *Examination Guidelines* and attend to topics highlighted for revision from previous grades such as *mitosis* in Grade 10. Proper revision of the phases of *mitosis* is essential and clear differentiation between *meiosis II* and *mitosis* must be emphasised. Although these processes share similarities, the differences are important and should be explicitly highlighted for learners. In many cases, teaching in Grade 12 focuses only on *meiosis I* and *meiosis II*, leaving gaps in learners' understanding of *mitosis*. Teachers must also use the list of teaching tips on this topic as stated in the *2024 Diagnostic Report*.
- (g) Teachers can use flow diagrams to show the sequence: *DNA* → *mRNA (transcription)* → *protein (translation)*. Scaffold problem-solving by teaching learners to move step-by-step backwards from *codon* → *anticodon* → *DNA triplet*.
- (h) Reinforcing the use of correct terminology (*chromosome viz. chromatid; single viz. double-stranded*) must be prioritised. Furthermore, the term *variation* is a general answer while the result of crossing over is specifically *genetic variation*. It is important that learners know the difference.
- (i) Learners should be exposed to different examples of non-disjunction (sex chromosome abnormalities like Turner or Klinefelter's) to broaden understanding. The genetic combination of the zygotes, e.g.  $XX + X/Y = XXX/XXY$ , must be emphasised.
- (j) Teachers must refrain from using the term *DNA fingerprinting* and rather use *DNA profiling* as prescribed in the current *Examination Guidelines*.
- (k) Teachers must emphasise the correct terminology when explaining *DNA profiling* and the difference between the use of DNA profiles in forensics and paternity testing.

The different applications of DNA profiles can be clarified for learners as follows:

USE OF DNA PROFILE	WHAT TO LOOK FOR
Forensics (Identification of a criminal, family member or a deceased person)	All the DNA bands of the suspect/family member must be identical to the DNA profile of the sample from the crime scene/missing person
Paternity testing	Each band of the child must match either that of the mother or of the potential father. If the child has a band that does not match that of either parent, then that excludes that male as the father

- (l) Case studies (crime scene investigations, paternity tests) can be used to show how DNA profiles are interpreted.
- (m) Teachers can use pedigree chart exercises with varied disorders (dominant, recessive, sex-linked) to highlight differences. The use of past DBE papers as class and daily activities are recommended to practise the subtopic.
- (n) When a key is given in a pedigree diagram, candidates must use the wording given in answering questions based on it.
- (o) As stated above, teachers must also encourage learners to draw family pedigree diagrams which will improve their understanding of it.
- (p) To explain why the parents are heterozygous in the pedigree diagram, learners need to refer to the genotypes and phenotypes of the parents and offspring. An important part is that the children without CADACIL inherit a recessive allele from each parent to have two recessive alleles.
- (q) Teachers and subject advisors must refer to the *2021 Diagnostic Report*, which provides steps on how to interpret a pedigree diagram.
- (r) As indicated in the *2024 Diagnostic Report*, learners should be given the *phenotypes* and *genotypes* of the different blood groups as in the table below:

(s)

PHENOTYPE (BLOOD GROUP)	GENOTYPE
<b>A</b>	Homozygous - ( $I^A I^A$ ) Heterozygous - ( $I^A i$ )
<b>B</b>	Homozygous - ( $I^B I^B$ ) Heterozygous - ( $I^B i$ )
<b>AB</b>	Heterozygous - ( $I^A I^B$ )
<b>O</b>	Homozygous - ( $ii$ )

- (t) Teachers can use visual examples (snapdragon flower colours, coat colour in animals) to distinguish between incomplete and co-dominance.
- (u) Learners need to be informed not to use the terms *homozygous* and *heterozygous* when describing the *phenotype* in a genetic cross. It is also important to note that only the smallest ratio will be marked correctly, if requested in the question.
- (v) The section on evolution comprises 36% (54 marks) in Paper 2. Teachers must refer to the *2024 Diagnostic Report* for more information on this topic.

- (w) Teachers must use comparative diagrams of primate viz; human skulls and spines, to show structural differences. Scaffolding the explanations, i.e. teach learners to link feature → function → significance, which will enhance the understanding of these differences.
- (x) Teachers should focus on the anatomical differences between the African apes and humans with the aid of diagrams.
- (y) Teachers must expose learners to numerous case studies and real-world examples when teaching theories like *speciation* and *natural selection*. They need to design classroom activities and assessments that require learners to apply generic knowledge to specific, novel scenarios.
- (z) Teachers need to clarify the following in *biogeography*: A common ancestor population becomes separated generally due to *continental drift* and this further leads to speciation.
- (aa) A similar question on *biogeography* and *speciation* was assessed in November 2021 (Q3.2) but a different example was used. Therefore, as stated before, the use of previous examination papers as daily activities/assessment tasks can expose learners to questions based on difficult content. This will give them the opportunity to apply their knowledge and, in so doing, prepare them for the final examination. Also, teachers should revisit the *2021 Diagnostic Report*.
- (bb) Teachers need to integrate and strengthen investigative skills: scientific method practice should be embedded throughout the curriculum in Grades 10 to 12.
- They should conduct simple practical investigations to teach *variables*, *hypothesis testing* and data analysis.
  - Learners should practise graph interpretation and trend description regularly.
  - A structured approach to answering investigative questions must be taught.
  - Learners must be able to differentiate between the *independent variable* and the *dependent variable*. They should also be au fait with how the dependent variable was measured.

# CHAPTER 9

## MATHEMATICAL LITERACY

The following report should be read in conjunction with the Mathematical Literacy question papers of the November 2025 examinations.

### 2.1 PERFORMANCE TRENDS (2021–2025)

The number of candidates who sat for the Mathematical Literacy examination in 2025 increased by 34 419 candidates, compared to that of 2024.

There was a slight increase in the pass rate this year. Candidates who passed at the 30% level increased from 86,1% in 2024 to 86,2% in 2025. The pass rate at the 40% level over the past two years dropped from 62,1% in 2024 to 61,4% in 2025.

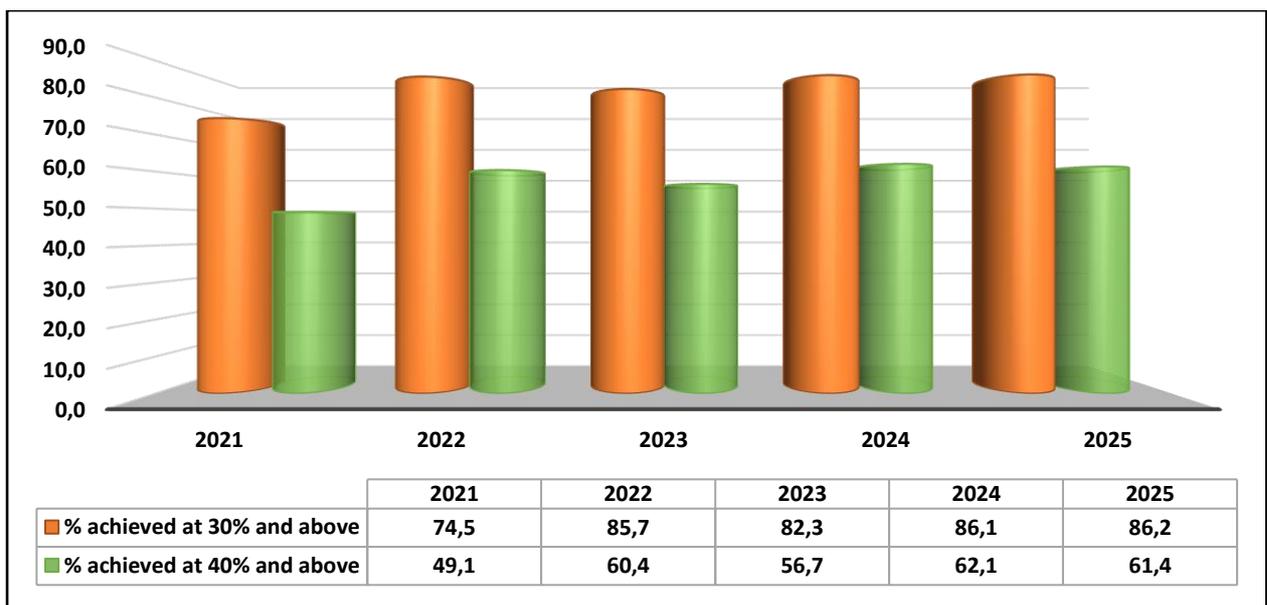
The number of distinctions dropped by 0,2%.

The various intervention strategies employed by teachers, subject advisors and provincial education departments were continued in 2025. The results in 2025 are similar to those in 2024.

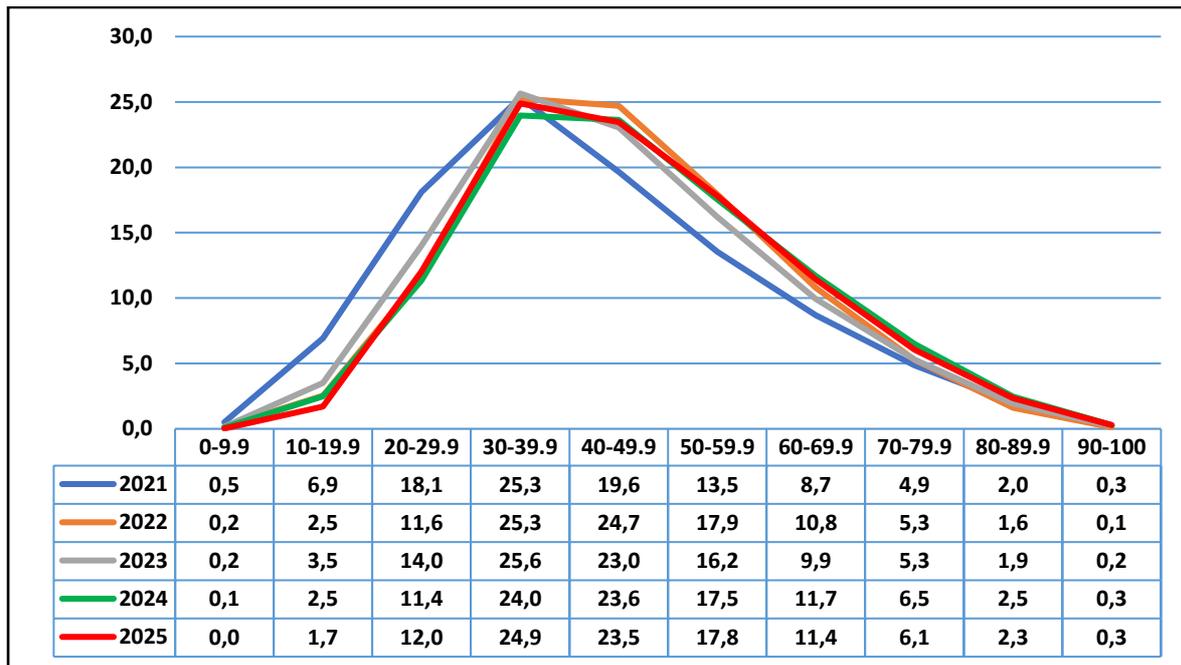
**Table 9.1.1 Overall achievement rates in Mathematical Literacy**

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2021	441 067	328 382	74,5	216 692	49,1
2022	450 005	385 515	85,7	271 830	60,4
2023	421 835	347 227	82,3	239 045	56,7
2024	442 741	380 994	86,1	274 895	62,1
2025	477 160	411 509	86,2	292 783	61,4

**Graph 9.1.1 Overall achievement rates in Mathematical Literacy (percentage)**



**Graph 9.1.2 Performance distribution curves in Mathematical Literacy (percentage)**



## 9.2 GENERAL COMMENTS ON PAPER 1 AND PAPER 2

- (a) The analysis of candidates' performance in the current examination cycle continues to reveal recurring patterns of errors that have persisted across recent years, including 2023 and 2024. The purpose of consistently documenting these common misconceptions in diagnostic reports is to provide clear, actionable direction so that teachers and learners can actively address and eliminate these weaknesses before they become entrenched.
- (b) The observations, explanations and targeted advice presented in this report are intended to serve as a practical planning tool for teachers. By incorporating the highlighted areas of difficulty into daily lesson design, homework tasks and informal assessments, educators can systematically reduce the likelihood of learners repeating the same errors observed in previous examination cycles.
- (c) While past NSC question papers remain a valuable resource for examination preparation, they should never constitute the sole focus of classroom instruction. Over-reliance on past papers limits the development of genuine conceptual understanding and problem-solving flexibility. Teachers are strongly encouraged to use past papers selectively and strategically, integrating them into broader teaching and learning programmes.
- (d) Regular, short formative assessments play a critical role in building candidates' confidence and deepening understanding across all topics. These low-stakes activities provide immediate feedback, reinforce correct procedures, and familiarise learners with mark allocation expectations. In particular, the less demanding sections of each question – especially those typically found in Question 1 – offer excellent opportunities to boost confidence and establish positive momentum early in the examination.
- (e) It is concerning that many of the weaknesses identified in this report mirror those repeatedly flagged in previous diagnostic reports. This suggests that earlier

recommendations have not been fully implemented or sustained over time. Teachers are urged to review diagnostic reports from the past three to five years and identify topics or concepts that appear persistently problematic. Long-standing concerns, such as candidates' difficulties with basic arithmetic operations involving large numbers, place value, time calculations, and unit conversions, require deliberate, ongoing intervention across the FET phase.

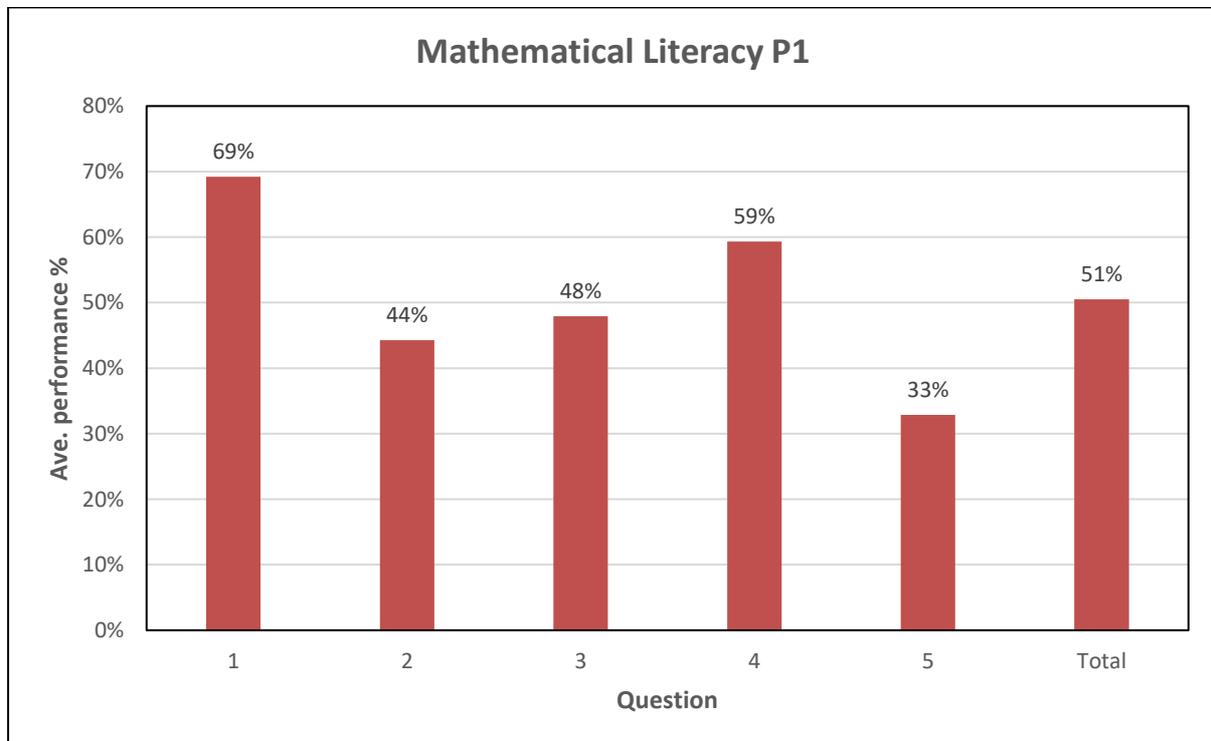
- (f) Once again, candidates demonstrated limited proficiency in extracting and interpreting information directly from graphs, tables, maps and other data sources. This fundamental skill remains a significant barrier to success and must be prioritised through consistent, progressive practice. Teachers should integrate targeted graph- and table-reading exercises into every topic, across classroom activities, homework assignment, and informal assessments throughout Grades 10 to 12.
- (g) Candidates once again lacked the skill of reading information from a graph or table. These should be practised and integrated into classroom and homework activities throughout the FET phase.

### 9.3 OVERVIEW OF CANDIDATES' PERFORMANCE IN PAPER 1

#### General comments

- (a) The 2025 question paper was set according to the *2021 Examination Guidelines*. The Application Topics tested in Paper 1 are: Finance, Data Handling and Probability. Question 1 was based entirely on short contexts with all questions pitched at level 1.

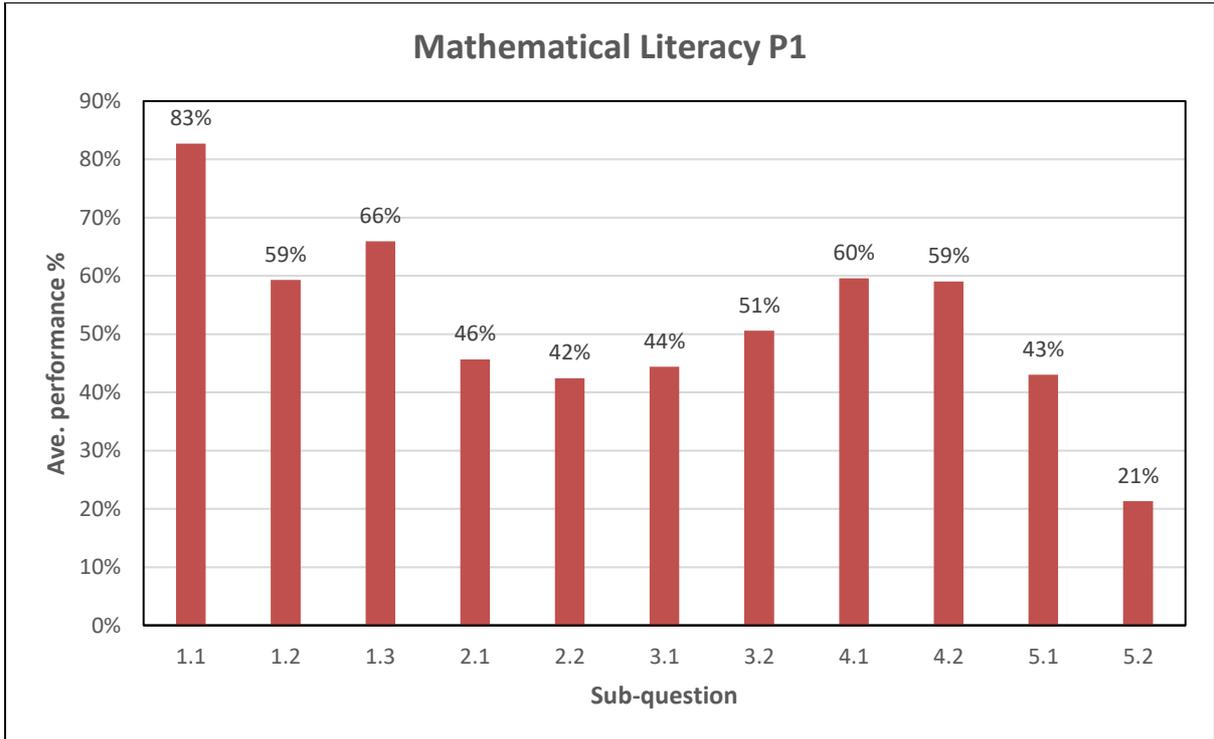
**Graph 9.3.1 Average performance per question in Paper 1 2025**



## Mathematical Literacy

Question	Topic	Ave. performance %
1	Finance and Data Handling	69%
2	Finance and Probability	44%
3	Data Handling and Probability	48%
4	Finance and Data Handling	59%
5	Finance and Data Handling	33%
<b>Total</b>		<b>51%</b>

**Graph 9.3.2 Average performance per subquestion in Paper 1 2025**



Subquestion	Topic	Ave. performance %
1.1	Finance	83%
1.2	Finance; Data Handling	59%
1.3	Data Handling	66%
2.1	Finance	46%
2.2	Finance; Probability	42%
3.1	Data Handling; Probability	44%
3.2	Data Handling; Probability	51%
4.1	Finance	60%
4.2	Finance; Data Handling	59%
5.1	Finance	43%
5.2	Finance; Data Handling	21%

### 9.4 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 1

#### QUESTION 1: SHORT CONTEXTS (INTEGRATED LEVEL 1 QUESTIONS ONLY)

The three application topics, combined with the short contextual questions in Q1, helped candidates perform well. Q1 was the best answered question in the paper.

### Common errors and misconceptions

- (a) In Q1.1.2 candidates multiplied by 5 instead of dividing by 5 to find the unit price per kg (poor question interpretation).
- (b) Candidates could read correct prices from the table in Q1.1.3, but failed to round the ratio to three decimal places (e.g. 1 : 1,024 instead of 1 : 1,025). Some candidates swapped the order of the ratio.
- (c) In Q1.1.4 most candidates used Durban or Cape Town prices instead of Johannesburg, a reading of the wrong column.
- (d) In Q1.2.1 most candidates chose H instead of D (confusion regarding simple and compound interest).
- (e) Candidates chose E instead of F in Q1.2.3, revealing a struggle with words like 'bank' and 'pay monthly'.
- (f) In Q1.2.4 many candidates chose A instead of G.
- (g) In Q1.3.2 candidates confused discrete and continuous data.
- (h) Candidates could not name the right data collection instrument in Q1.3.3, where the method was inconsistent or left blank.
- (i) In Q1.3.4 some candidates added wrong totals or used 'black females' as the total, revealing that they did not understand the table.
- (j) Candidates struggled to write large numbers in words, consistently missing the hundred thousand zero in Q1.3.5.
- (k) In Q1.3.6 candidates swapped top/bottom numbers; forgot to multiply by 100 for percentage; or did not calculate percentage at all.

### Suggestions for improvement

- (a) Provide learners with consistent opportunities to practise 'per kg/per litre/per item' questions using different operations. Teach the phrase 'to find the price **per** unit, we **divide** total price by number of units' as a fixed rule. Use colour-coding or arrows in illustrative examples ( $\text{total} \div \text{quantity} = \text{unit price}$ ).
- (b) Train learners to **underline/highlight** the city name in the question first, then to find and underline the matching column header before reading any value. Make this a non-negotiable first step in table-reading questions.
- (c) Create clear **side-by-side comparison tables** for similar concepts, for example simple vs compound interest, debit order vs stop-order. Teach learners to **cross out** obviously wrong options first and to justify every choice in full sentences. Use real-life scenarios and ask, 'What actually happens to the money?', rather than memorising definitions.
- (d) Use visual anchors:

- Discrete = 'countable items, whole numbers only' (such as the number of eggs, people, cars) show pictures of separate objects.
  - Continuous = 'can take any value, measured with decimals' (such as mass, height, time, temperature) illustrated by rulers, scales, clocks. Give learners a quick test: 'Can I count it in whole numbers only?' Then it is discrete.
- (e) Teach the full data-handling cycle early and often, using a big visual wall poster or mind map. Make two clear lists side by side: Instruments/tools: questionnaire, interview schedule, observation checklist, data logger, etc. Methods: survey, experiment, observation, etc. Ask exam-style questions: 'Name **one instrument** used to collect this data.'
- (f) Do regular reverse practice: give the number in digits → write in words and give words → write in digits. → Teach the place value chart every time (millions | hundred thousand | ten thousands | thousands | hundreds | tens | units). → Stress: 'If there is no hundred thousand, you **must** write the zero.'
- (g) Use a fixed 4-step procedure every time:
- Write the fraction (in the correct order)
  - Divide top by bottom
  - Multiply by 100
  - Add % sign
- Provide many short percentage drills with tables so that this skill becomes automatic.
- (h) Start every lesson with a 5-minute 'skill drill' on one weak area (such as rounding, ratios, table reading, definitions, place value).

## QUESTION 2: FINANCE

### Common errors and misconceptions

- (a) In Q2.1.1 most candidates struggled to expand the acronym UIF correctly. Common wrong answers included 'Unemployment Insufficient Funds', 'Unemployment Investment Funds', or 'Unemployment Index Fund'. Many candidates simply guessed to arrive at a response.
- (b) Most candidates could not interpret that the employer contributes one-third of the total medical aid premium in Q2.1.3. They often divided the employee's contribution (R2 531,54) by 3 instead of recognising it as two-thirds and calculating the total contribution first and then finding the employer's one-third share. Some used tax credit values instead of the actual contribution amount.
- (c) In Q2.1.4(a) most candidates read the wrong value from the monthly PAYE deduction table (R6 235 instead of R6 298) or ignored Muriel's age when selecting the correct tax rebate.
- (d) Candidates calculated the total deductions (UIF + PAYE + Medical Aid) in Q2.1.4(b), but forgot to subtract this sum from the gross salary. Some subtracted from the wrong gross amount or simply added the deductions instead of subtracting.
- (e) In Q2.1.4(c) most candidates struggled to calculate annual taxable income correctly. Common mistakes included:
- Forgetting to multiply monthly income by 12
  - Not annualising the Medical Tax Credit (MTC) by multiplying by 12
  - Choosing the wrong tax bracket

- Adding the rebate instead of subtracting it
  - Poor application of BODMAS. Many candidates could not justify whether Muriel was overtaxed based on their final calculation.
- (f) In Q2.2.1 candidates often calculated the percentage of pensioners to adults instead of the percentage saved on the bus trip. Some swapped values, using R14,20 instead of R4,20 as the saving and forgot to multiply by 100, or used the wrong denominator.
- (g) Most candidates calculated the total saving for 44 trips instead of the saving per trip as required in Q2.2.2. Some used the wrong number of days (such as 30/31), selected incorrect table values, or stopped after finding the difference without dividing for per-trip saving.
- (h) In Q2.2.3 candidates struggled to interpret Table 4 correctly, namely to determine that a 10-year-old cannot buy a weekly 12-trip package (probability = 0). Common errors included writing 'none', '0/12', '0/8', or using descriptive words instead of a proper probability fraction, 0/4 or 0/3.
- (i) Most candidates divided the total package value (R416,30) directly by the weekly price (R127,10 or R106,00) without first subtracting the R35 card activation fee. This led to incorrect answers (for example 3 trips instead of the correct value) in Q2.2.4.

### **Suggestions for improvement**

- (a) Expose learners regularly to activities that target the observed errors and misconceptions.
- (b) Give learners consistent activities on basic arithmetic skills, including BODMAS, changing the subject of a formula, and adding fractions within a real-life authentic context.
- (c) Encourage learners to read questions carefully to understand the context instead of relying on memorisation.
- (d) Practise scaffolded level 3/4 questions by breaking them into smaller steps to help learners handle complex information without confusion.
- (e) Provide more classwork and homework activities that focus on key financial terms and acronyms such as UIF, PAYE, and MTC.
- (f) Strengthen probability understanding by teaching that it is expressed in a scale from 0 (impossible) to 1 (certain) and that answers must be expressed as fractions or percentages (e.g. 0 or 0%).
- (g) Revise basic skills (such as ratios, rates, proportions, and percentages) regularly across all Grade 12 application topics.

### **QUESTION 3: DATA HANDLING**

#### **Common errors and misconceptions**

- (a) Candidates generally performed well in Q3.1.1. However, some candidates failed to arrange the data in ascending or descending order before determining the median.

A common error was calculating the mean percentage instead of the median, often by simply adding the values and dividing by two:  $(46\% + 56\%)/2 = 51\%$ .

- (b) Candidates expressed the probability as a percentage or fraction instead of the required decimal format in Q3.1.2.
- (c) In Q3.1.3(a) many candidates struggled to calculate the total number of *Snapchat* users when given the number of female users and the percentages for both males and females. Common errors included incorrect percentage calculations (such as using the wrong percentage as the multiplier), adding male and female users incorrectly, and omitting zeros when working with millions, for example writing 750 instead of 750 000 000.
- (d) Candidates were unable to determine the difference between female and male users in Q3.1.3(b). Many failed to express the final answer in millions, for example writing 60 instead of 60 000 000. Conclusions were often inconsistent with calculations, with some candidates manipulating figures to produce an answer without demonstrating conceptual understanding.
- (e) In Q3.2.1 candidates had difficulty in correctly identifying the graph type. The majority described it simply as a 'bar graph' or 'stacked graph', failing to specify that it was a stacked bar graph. Many candidates also incorrectly referred to it as a double bar graph.
- (f) Candidates struggled in Q3.2.2(b) to read values correctly from the stacked bar graph. Many failed to subtract the appropriate segments to isolate the middle portion of the bar, resulting in incorrect values for LTE devices in Limpopo. A frequent error was omitting the unit of millions, leading to answers with insufficient zeros or without the word 'million'.
- (g) In Q3.2.2(c) most candidates understood the concept of range, but they were unable to identify the maximum and minimum values from the stacked bar graph accurately. Once again, omission of the million unit was common.
- (h) Q3.2.3 proved challenging for most candidates. Many were unable to complete the stacked bar graph accurately for KwaZulu-Natal and Mpumalanga in 2023. Difficulties included incorrect interpretation of the scale, wrong starting points for bars and failure to plot the correct end points.

### **Suggestions for improvement**

The performance in Q3 revealed persistent challenges in the application of basic statistical concepts, graph interpretation, graph construction, and working with large numbers expressed in millions. The following recommendations are provided to address the identified misconceptions and errors, strengthen foundational skills and improve overall candidate performance in future examinations.

- (a) Teachers should expose learners to different types of graphs; teach how to draw them accurately; and develop strong interpretation skills across all prescribed graph types.
- (b) Learners must be exposed to a wide variety of activities specifically targeting the observed errors and misconceptions, particularly in the calculation of mean, median and range.

- (c) Informal activities should include level-3 and level-4 questions to better prepare learners for the cognitive demands of formal assessments.
- (d) Teachers are encouraged to attend regular subject content and methodology workshops to stay up to date and enhance their instructional strategies.
- (e) Candidates must be taught multiple methods of using percentages to calculate actual values such as reverse percentage calculations, with particular emphasis on working with large numbers (millions and billions) as required by the *CAPS* document.

#### **QUESTION 4: FINANCE, DATA HANDLING AND PROBABILITY**

##### **Common errors and misconceptions**

- (a) In Q4.1.1 candidates struggled to construct a correct algebraic formula for the trailer rental cost. Most were able to identify the fixed deposit of R1 000, but many wrote the formula in words only, without using variables and the numerical co-efficient to represent the fixed and variable components.
- (b) Most candidates successfully calculated the value of B in Q4.1.2, although some incorrectly applied the variable cost of the large trailer (R500) instead of the small trailer.
- (c) In Q4.1.3(a) most candidates failed to subtract the refundable deposit of R1 000 from the total income, while others incorrectly subtracted R8 000.
- (d) In Q4.1.3(b) candidates demonstrated a clear lack of understanding of the phrase 'or part thereof' in the context of labour charges. Most multiplied the hourly rate of R480 by 1,5 hours instead of rounding up to 2 hours.
- (e) Candidates were generally able to identify the correct values from the table and simplify the calculation in Q4.2.1, but the majority failed to round the final answer correctly from millions to the nearest thousand.
- (f) In Q4.2.3 candidates showed limited understanding of the *mean* concept. Many used incorrect values from the table, divided by the wrong number of items, or selected the wrong column, resulting in poor performance in this question.
- (g) In Q4.2.4(a) some candidates confused 'ascending' and 'descending order' when arranging the data, while others omitted a value entirely, affecting their ability to identify the correct *quartiles*.
- (h) Many candidates struggled with Q4.2.4(b), since they were unable to identify the lower quartile (Q1) from the arranged data, even though Q3 was provided, and many failed to apply the IQR formula correctly.

##### **Suggestions for improvement**

- (a) Teachers should supply more practice in translating word problems into accurate mathematical expressions and formulae.
- (b) Teachers should focus on and reinforce the meaning of 'or part thereof' in tariff contexts, emphasising that 1,5 hours must be charged as 2 full hours.

- (c) Candidates must be provided with additional activities on unit conversions, such as millions to thousands, and precise rounding techniques.
- (d) Teachers should develop multi-set data table activities that focus on accurate data selection, correct column choice and thorough analysis in varied contexts.
- (e) Candidates should be exposed to complex, extended contexts that demand careful reading and deep comprehension to strengthen reasoning for higher-cognitive questions.
- (f) Rounding skills, a core Grade 10 skill, must be practised frequently under supervision, with emphasis on correct procedures and the impact of small rounding errors on final answers when multiplied.
- (g) Measures of central tendency (*mean, median, mode*) should be practised using both large and small numbers in varied contexts, with written feedback and remediation provided after assessments.
- (h) Candidates must receive clear instruction on identifying *quartiles*, explaining the process, and calculating *interquartile* ranges, including reverse applications.

## QUESTION 5: DATA HANDLING AND FINANCE

### Common errors and misconceptions

- (a) Most candidates answered Q5.1.1 correctly, but some read incorrect values from the table, such as using £25,36 from Option A instead of the value from Option B.
- (b) Candidates failed to provide a convincing reason for choosing Option A in Q5.1.2(a). Many simply stated that it was cheaper, without referring to the lower deposit and first-month instalment. In Q5.1.2(b) candidates used the wrong VAT rate of 15% instead of the given 20%. Many multiplied the monthly instalment by 48 months, forgetting that the first instalment was included in the deposit.
- (c) Candidates struggled in Q5.1.3 with the double currency conversions from pounds to rands and then to Swiss francs. Most were unsure whether to multiply or divide by the exchange rates and often rounded incorrectly.
- (d) In Q5.2.1 candidates could not calculate the missing inflation value when the *mean* was given. Many failed to recognise that 'average' means 'mean' and omitted the missing value from the dataset.
- (e) Candidates struggled to read petrol prices accurately from the graph for July and August 2024 in Q5.2.2. Most did not calculate the cost difference for a 40-litre tank.
- (f) In Q5.2.3 candidates performed poorly on the reverse inflation calculation. Many incorrectly calculated 2,2% of the July price and subtracted it, instead of applying the correct reverse method.
- (g) Candidates described trends vaguely, using terms like 'increasing' or 'decreasing' without specifying time frames in Q5.2.4. Many incorrectly analysed the petrol price graph instead of the inflation rate table.

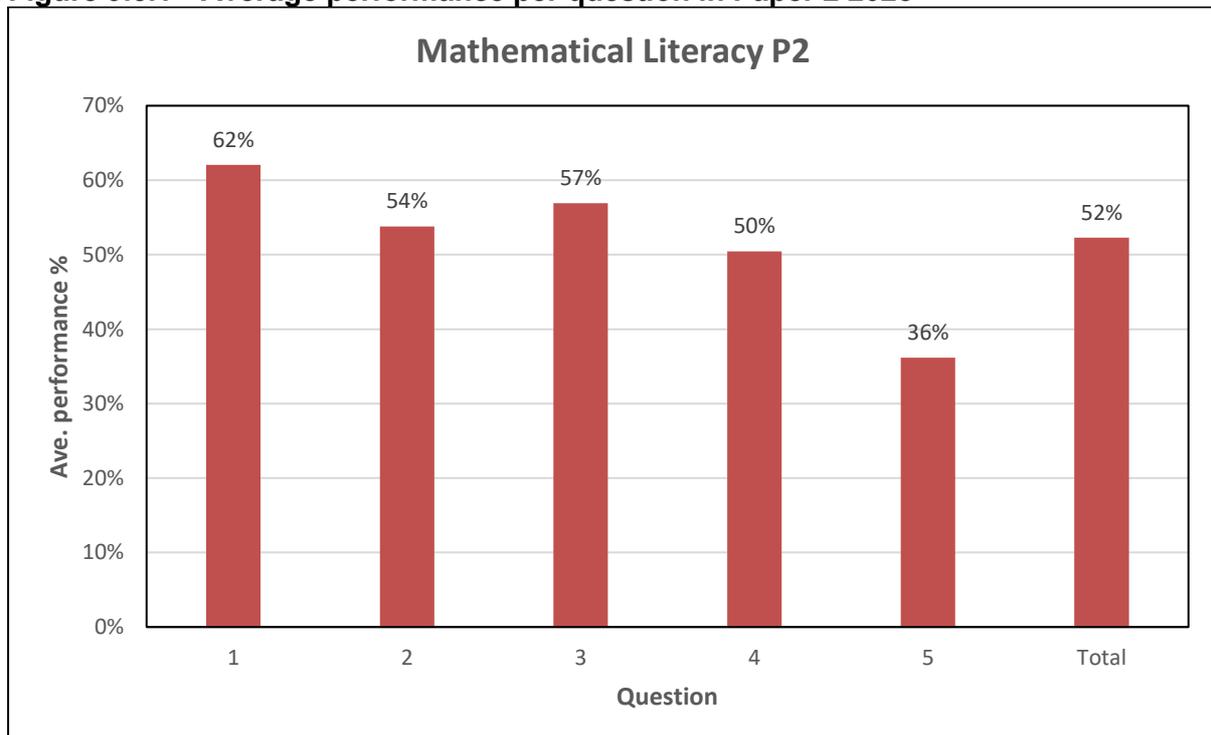
### Suggestions for improvement

- (a) In order to address the specific errors and misconceptions that have been observed in candidates' responses effectively, teachers are strongly advised to provide extensive targeted practice activities throughout the teaching and learning process.
- (b) Learners require systematic and regular training in the skill of accurately describing trends derived from various graphs and tables. Teachers must ensure that learners incorporate precise data points, relevant time periods and appropriate terminology such as 'increasing,' 'decreasing' or 'remaining stable' in their descriptions.
- (c) Candidates should be exposed systematically to a wide variety of exchange rate problems that involve conversions between multiple currencies, presented in both familiar everyday scenarios and more unfamiliar international contexts.
- (d) Regular review of previous NSC examination papers remains a valuable strategy for building both knowledge and the ability to apply concepts effectively in questions of medium to higher difficulty.
- (e) Candidates need explicit guidance on how to formulate deductions, opinions, or validations within financial contexts, drawing on accurate calculations, multi-step procedures, and information from texts, tables, graphs, rates, ratios and percentages.
- (f) Teachers must reinforce that the terms 'average' and 'mean' are interchangeable in statistical contexts, while repeatedly practising the core formula of dividing the sum of values by the number of values.

### 9.5 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 2

The following graph is based on data from a random sample of candidates. While this graph may not accurately reflect national averages, it is useful in assessing the relative degree of challenge of each question as experienced by candidates.

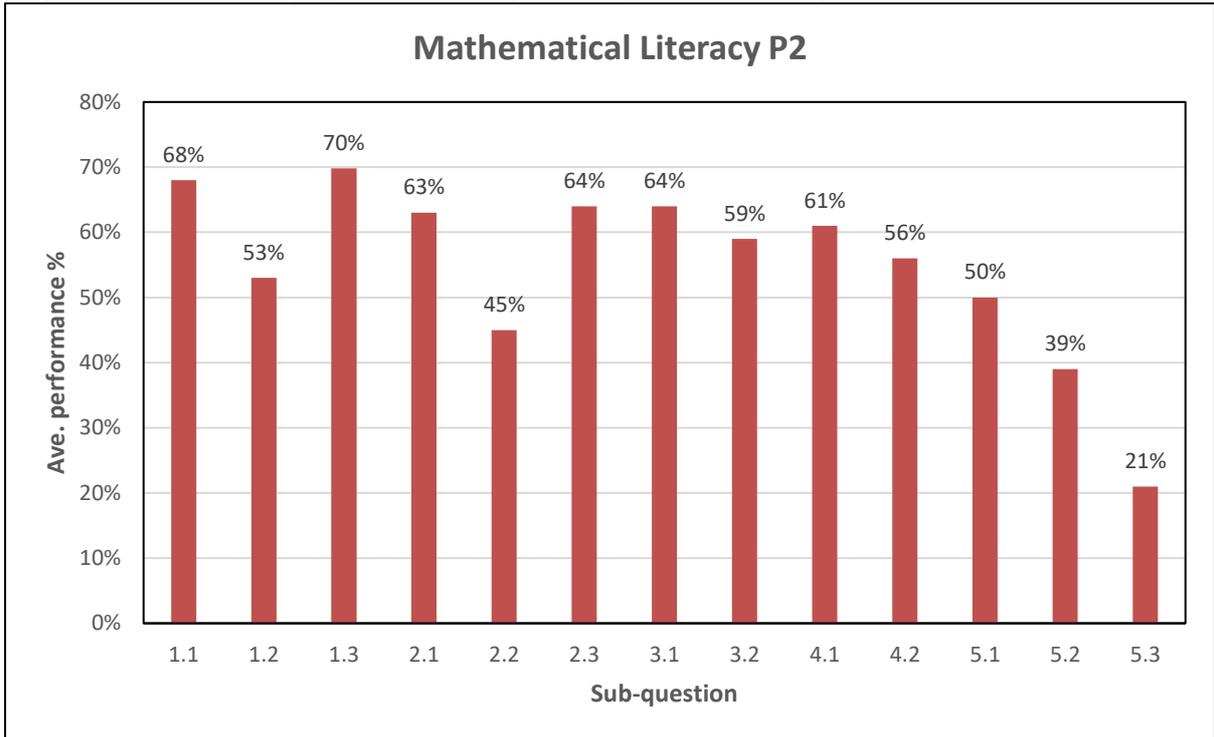
**Figure 9.5.1 Average performance per question in Paper 2 2025**



Mathematical Literacy

Question	Topic	Ave. performance %
1	Maps, plans and Measurements	62%
2	Maps, plans	54%
3	Measurements and Probability	57%
4	Measurements, Maps, and Probability	50%
5	Measurements, Maps and plans and Probability	36%
<b>Total</b>		<b>52%</b>

Figure 9.5.2 Average performance per subquestion in Paper 2 2025



Subquestion	Topic	Ave. performance %
1.1	Measurement, Maps, Plans and Other	68%
1.2	Measurement	53%
1.3	Measurement, Maps, Plans and Other	70%
2.1	Maps, Plans and Other	63%
2.2	Maps, Plans and Other	45%
2.3	Maps, Plans and Other	64%
3.1	Measurement and Probability	64%
3.2	Measurement	59%
4.1	Maps, Plans and Other	61%
4.2	Measurement and Probability	56%
5.1	Probability, Maps, Plans and Other	50%
5.2	Measurement	39%
5.3	Measurement	21%

## 9.6 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 2

### QUESTION 1: SHORT CONTEXTS (INTEGRATED LEVEL 1 QUESTIONS ONLY)

#### Common errors and misconceptions

- (a) Q1.1.1 was well answered by most candidates, but certain candidates could not differentiate between a *floor plan* and an *elevation plan*.
- (b) In Q1.1.5 candidates chose letter D instead of F. They confused the definitions 'the region covered by the shape or object' and 'the distance around the shape of the object'.
- (c) In Q1.2.1 most candidates could not write the arrival time 14:15 in words, using the 12-hour format instead.
- (d) When calculating  $33\frac{1}{3}\% \times 189$  passengers in Q1.2.2, candidates who used non-scientific calculators often obtained 62,999... and incorrectly rounded down to 62 passengers instead of up to 63 passengers.
- (e) In Q1.2.3 most candidates were unable to identify the correct method for calculating speed from the given options, with some using the arrival time instead of the actual duration. Furthermore, candidates did not realise that the time in the time/distance/speed formula is a duration and not an exact time.
- (f) In Q1.2.4 many candidates struggled to count days backwards to a specific day without a calendar; hence, they did not get to Thursday but another day of the week. In some cases, candidates' lack of knowledge of the number of days per month and how to count backwards when given a last date to a previous date caused incorrect responses.
- (g) Q1.3.1 was well answered; however, some candidates were still unable to match the given statements with the pictures.
- (h) In Q1.3.2 candidates struggled to select the formula for surface area of a closed cylinder.
- (i) In Q1.3.3 some candidates used incorrect conversion factors, while others did not know whether to multiply or divide when converting from metres to millimetres.

#### Suggestions for improvement

- (a) Teachers must reinforce terminology, using simple definitions and repeated exposure in different contexts. Give learners spot tests on definitions and recognising formulae.
- (b) Learners should be exposed to definitions/concepts in Mathematical Literacy that are easily confused. Definitions for *layout plan*, *elevation plan* and *floor plan* should be taught simultaneously so that learners may recognise the difference between them.
- (c) Give learners regular practice in converting 24-hour time to 12-hour time and writing these in words.

- (d) Teach learners how to handle recurring decimals and how to apply rounding based on context (such as rounding up for capacity). Encourage learners to use the fraction button when performing calculations.
- (e) Where possible, struggling candidates should be taught to calculate time using the hour/minute/second button on the calculator.
- (f) Calendar analysis is introduced in Grade 10 and needs to be taught using calendars, moving forward and backwards, to train learners to arrive at the correct answers.
- (g) Provide more diagram-based activities where learners interpret or match written descriptions with images.
- (h) Teachers are encouraged to reinforce concepts that are easily confused simultaneously, so that learners can distinguish between the concepts, such as elevation plan and floor plan.

## **QUESTION 2: MAPS AND PLANS**

### **Common errors and misconceptions**

- (a) In Q 2.1.1 some candidates demonstrated a clear understanding of the seating plan; however, they could not calculate the correct number of forward-facing seats. The way the seats were drawn caused the confusion.
- (b) In Q2.1.3 many candidates misinterpreted the directions for moving from seat C2 to seat J3 on the seating plan of the double-decker bus; as a result, they were unable to provide the correct answers.
- (c) Many candidates had difficulty interpreting the round-trip route map in Q2.2.1, which resulted in their being unable to identify the southernmost stop on the route, which was Camps Bay rather than Bakoven.
- (d) In Q2.2.2 many candidates wrote 'number scale' instead of 'bar scale'.
- (e) In Q2.2.3 most candidates were unable to determine whether the bus would be travelling in a clockwise or anticlockwise direction from stop 11 to stop 18. This may be because many learners struggle to visualise rotational movement on a map or diagram, leading to confusion between clockwise and anticlockwise directions.
- (f) In Q2.2.4 most candidates were unable to measure the bar scale on the map accurately and used the given round-trip distance to calculate the map distance. Many also struggled with converting between units correctly, possibly due to a lack of familiarity with scale conversions or difficulty in interpreting the relationship between real distances and map distances.
- (g) Many candidates were unable to determine whether the bathroom door on the floor plan opens to the right or left in Q2.3.1. This may be due to difficulty interpreting architectural symbols and door swing conventions commonly used in floor plans.
- (h) In Q2.3.2 some candidates were unable to identify the longest side of the living room in feet and inches and struggled to convert these measurements to centimetres using the given conversion factors. This may be due to difficulty working with imperial units and performing unit conversions accurately.

- (i) In Q2.3.3 candidates often provided only one difference between the two flats instead of two differences.
- (j) In Q2.3.4 some candidates did not provide an appropriate reason for the absence of a balcony, possibly due to language barriers or difficulty understanding the context. Some incorrect answers were: 'The balcony costs too much money'; 'the owner did not like the balcony'; and 'the balcony cannot be next to stairs.'
- (k) Many candidates gave incorrect or irrelevant reasons in Q2.3.5 for the absence of windows on north-facing walls, often mentioning sunlight instead of considering the functional design reasons. Others did not understand the concept of a 'block of flats'.

### **Suggestions for improvement**

- (a) Teachers should dedicate sufficient time to teaching the use of scales and performing metric conversions accurately. This includes practical exercises involving real measurements and conversion between metric units (km, m, cm, mm) as well as imperial units (feet and inches).
- (b) Learners should be exposed to different types of layout plans, including single- and double-storey flats, elevation plans and seating arrangements, to build familiarity and confidence. Teachers should practically demonstrate to candidates that a door can open to the left/right as you enter a classroom/house.
- (c) Teachers should guide learners to analyse the context of questions carefully, particularly open-ended questions, to avoid irrelevant or incorrect answers.
- (d) Teachers should put more emphasis on the conversion of metric to imperial units.
- (e) Learners must be encouraged to practise measuring dimensions accurately, using rulers and applying scale factors to convert between units.
- (f) Teachers should familiarise learners with the estimation of either actual distance or map distance using the bar scale.
- (g) For questions requiring explanations, teachers should scaffold learners' language skills to improve comprehension and expression, especially in interpreting spatial contexts.
- (h) Workshops should be organised at district levels to share approaches to the topic on maps and plans, in order to improve learners' performance in this topic.

### **QUESTION 3: MEASUREMENT AND PROBABILITY**

#### **Common errors and misconceptions**

- (a) In Q3.1.1 some candidates struggled with the concept of time, particularly in distinguishing between specific times and time duration. They were unable to determine the starting time given a finishing time of 13:12 and a duration of 3 hours 27 minutes. They subtracted the duration incorrectly, confusing hours and minutes, or misreading the 24-hour clock format.
- (b) In Q 3.1.2 some learners could not visualise the pattern described in words.
- (c) In Q3.1.3 most candidates did not convert the height of 240 mm to centimetres before substituting it into the given formula to calculate the area of Part A.

- (d) A few candidates were unable to perform conversions involving two-dimensional measurements ( $\text{mm}^2$  to  $\text{cm}^2$ ), which affected their calculations in Q3.1.4.
- (e) In Q3.1.5 most candidates demonstrated limited understanding of probability. They struggled with the correct interpretation of 'and' and 'or' in the statements and were unable to add fractions to determine the correct percentage.
- (f) In Q3.2.1 candidates wrote  $\text{radius} = \frac{4}{7} \times \frac{14 \text{ mm}}{2}$  instead of  $\text{radius} = \frac{4}{7} \times 14 \text{ mm}$ .
- (g) In Q3.2.2 some candidates could not distinguish between *diameter* and *radius*. Many candidates did not follow the rounding instruction.
- (h) In Q3.2.3 most candidates calculated the area of the material and the area of the circle correctly, but they did not multiply by 48. They failed to account for the fact that 48 pairs of earrings were to be covered on both sides, with each pair consisting of two earrings. Additionally, they were unable to calculate the remaining synthetic leather to verify whether the leftover area was less than 3 000  $\text{cm}^2$ . This indicates difficulty to apply multi-step calculations and verifying their calculations.

### Suggestions for improvement

- (a) Teachers should dedicate more time to teaching unit conversion, including length, area, and volume. Teachers must also ensure that learners understand how to apply formulae correctly.
- (b) Learners should be trained to analyse problems carefully, extract relevant information from the context, and follow all required calculation steps, particularly in multi-step questions.
- (c) Teachers should emphasise the importance of including the correct units in all calculations and answers before substituting values in the given formula. Teachers must emphasise the importance of these being converted into the unit required by the question.
- (d) Regular practice exercises should reinforce accurate measurement and unit conversions.
- (e) Learners should know the difference between radius and diameter.
- (f) Learners should be encouraged to work with the formula provided since it gives them guidance on which values should be used in the calculation.
- (g) Learners should be given more activities on calculation of the remaining material or area.
- (h) Teachers must impress on learners key words, such as 'pairs' and 'both sides', when answering Q3 type of questions.
- (i) Teachers should provide practical examples to help learners understand probability, including 'and' versus 'or' scenarios and how to combine fractions correctly.
- (j) Teachers should provide learners with more level 4 (complex, multi-step) questions to develop critical thinking, planning, and systematic problem-solving skills.

## QUESTION 4: MAPS AND PLANS, MEASUREMENT AND PROBABILITY

### Common errors and misconceptions

- (a) In Q4.1.1 most candidates were unable to identify the closest town west of Colesberg due to difficulty interpreting compass directions and understanding cardinal points correctly.
- (b) Most candidates were unable to count the actual number of national roads enclosed within the pentagon on the map in Q4.1.2(a). This may be due to difficulty interpreting map symbols and a lack of careful observation when reading the map.
- (c) In Q4.1.2(b) most candidates were unable to identify the correct town along the N12 on the map, often naming incorrect towns. This is likely due to difficulty in interpreting the map accurately.
- (d) In Q4.2.1 most candidates were unable to calculate the number of months from 13 January 2022 to 13 June 2023 to determine the duration the flamingo spent in Area A. Some candidates gave the answer in years and months (1 year 5 months), disregarding the given instruction.
- (e) Some candidates struggled with the concept of time in Q4.2.2, particularly when adding time or calculating duration (such as 19:00 + 14 hours 25 minutes). As a result, they were unable to determine the bird's date and time of arrival at Area E, given that it flew non-stop for 14 hours 25 minutes. Candidates demonstrated a lack of application of probability in the context of the route.
- (f) Candidates wrote 'Probability =  $\frac{3}{5}$ '/'no probability'/'the bird did not fly directly over Queenstown' instead of 'Probability = 0 **OR** 0%'/'impossible'.
- (g) In Q4.2.4 most candidates were unable to substitute values into the given formula correctly. They struggled to change the subject of the formula, using the incorrect time and they did not convert 25 minutes into hours when calculating the bird's average speed from Area B to Area E.
- (h) In Q4.2.5 most candidates correctly converted the direct distance between Area B and Area E from miles to kilometres, but they did not calculate the additional distance to determine whether the bird flew 268,13 km more than the direct route.
- (i) Most candidates misunderstood the question in Q4.2.6 and used the total population of 333 million in all steps instead of first calculating the number of adult women. They also struggled to round the final answer correctly. The calculation should have considered that 78% of the population were adults; that half of the adults were women; and that 10% of these adult women were shorter than 5 feet.

### Suggestions for improvement

- (a) Learners should be exposed to a wide range of unit conversion problems, including length (such as miles to kilometres) and measurements involving feet and inches. Emphasis should be placed on understanding conversion factors and applying them accurately.
- (b) Teachers should explain explicitly the difference between *time* and *duration*, and provide examples of how to represent, add and convert time correctly.

- (c) Teachers should guide learners to interpret multi-step problems, extract relevant information and apply reasoning skills systematically. Level 3 questions should be practised regularly to develop analytical and comprehension skills.
- (d) Teachers should integrate revision exercises on time and unit conversions, topics from previous grades, to reinforce learners' understanding.
- (e) Teachers should provide learners with frequent practice in reading and interpreting maps, including understanding symbols, scales and routes.
- (f) Percentage calculations, as a basic skill should be practised and included in activities from Grade 10.

## **QUESTION 5: MAPS AND PLANS AND MEASUREMENT**

### **Common errors and misconceptions**

- (a) In Q5.1.1 candidates failed to identify the diagrams that matched the shelf and the bookcase.
- (b) In Q5.1.2 candidates failed to apply the concept of probability in the context of the drawers and the bookcase.
- (c) Most candidates failed to relate the dimensions to the size of the bookcase in Q5.1.3(a).
- (d) In Q5.1.1.3(b) most candidates were unable to draw a scaled diagram of the hardboard using the given scale of 1:20, despite the dimensions being provided.
- (e) Candidates' performance in Q5.2 was poor. Many candidates calculated the area of a single piece of wood but were unable to use the given dimensions of the six pieces of wood and the hardboard to determine the area of the leftover wood after cutting the required material for two bookcases. They added areas, instead of subtracting them; they confused the units of measurement; they did not account for all six pieces; and failed to consider the hardboard separately from the wooden pieces.
- (f) In Q5.3 candidates struggled to convert the volume of wood from  $\text{m}^3$  to  $\text{cm}^3$ . They were unable to substitute the given density into the formula correctly and did not change the subject of the formula to calculate mass. They also failed to convert the mass from 300 000 g to 300 kg and then to tonnes in order to verify the statement. They did not recall that 1 tonne equals 1 000 kg, leading to incorrect unit conversions and calculation errors when applying the formula.

### **Suggestions for improvement**

- (a) Teachers must ensure that all content and skills outlined in the *CAPS* and the *Examination Guidelines* are covered thoroughly during teaching.
- (b) To help improve learner performance relating to maps, plans and scaled diagrams, teachers should organise district-level workshops to share best practices.
- (c) Teachers should make use of DBE definition booklets and administer speed tests on terminology to reinforce understanding.

- (d) Teachers should develop real-life scenarios in class activities to expose learners to a variety of contexts. Emphasis should be placed on interpreting pictures and illustrations in conjunction with the information provided in each question.
- (e) Teachers should provide learners with regular exercises that involve different formulae, simplification, and making the unknown the subject of the formula.
- (f) Reverse calculation of perimeter, area and volume should form part of daily activities when teaching and assessing measurement.
- (g) Teachers should maximise contact time by incorporating daily Mathematical Literacy practice. Exercises should be corrected with explanations and short classroom tests should be administered frequently with timely feedback.
- (h) Teachers should reinforce the topic of how to draw a sketch of a real-life object according to scale and the topic of density.

# CHAPTER 10

## MATHEMATICS

The following report should be read in conjunction with the Mathematics question papers for the NSC November 2025 examinations.

### 10.1 PERFORMANCE TRENDS (2021–2025)

The number of candidates who sat for the Mathematics examinations in 2025 increased by 2 927, compared to that of 2024.

There was a decline in the pass rate this year. Candidates who passed at the 30% level and above changed from 69,1% in 2024 to 64,0% in 2025. There was a corresponding change in the pass rate at the 40% level and above over the past two years from 47,9% to 41,9%.

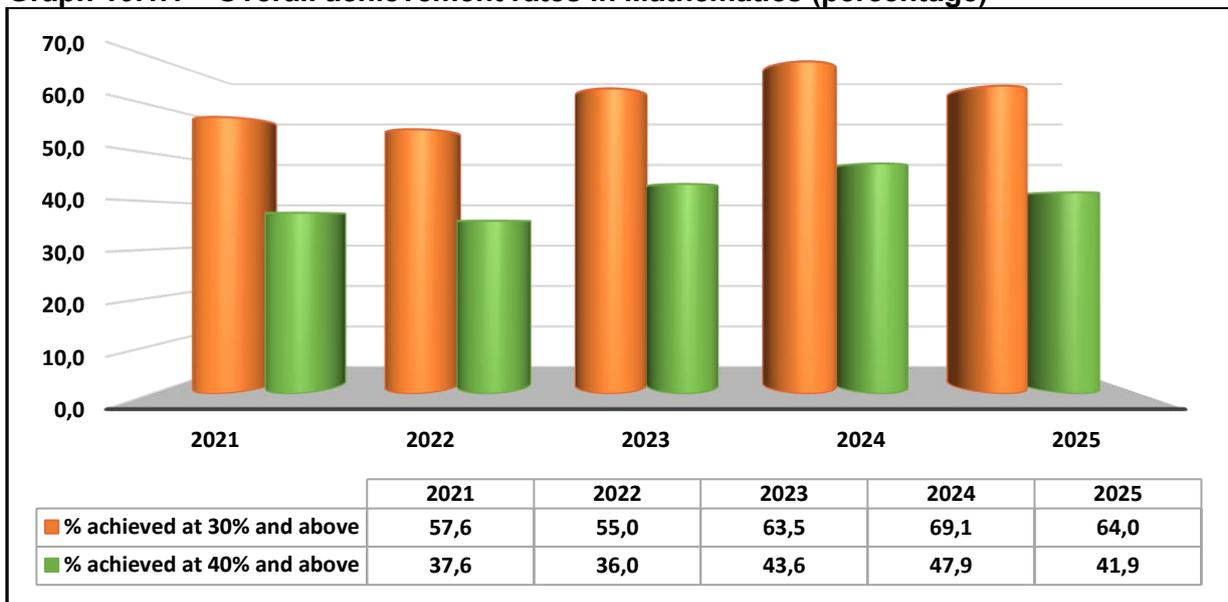
There was also a decline in the percentage over 80% from 3,9% in 2024 to 1,9% in 2025. The total number of distinctions has shown a decrease for the past two years from 9 808 in 2024 to 4 834 in 2025.

The various intervention strategies employed by teachers, subject advisors and provincial education departments were continued in 2025. The resourcefulness and diligence of the above-average candidates contributed to the overall results in the subject.

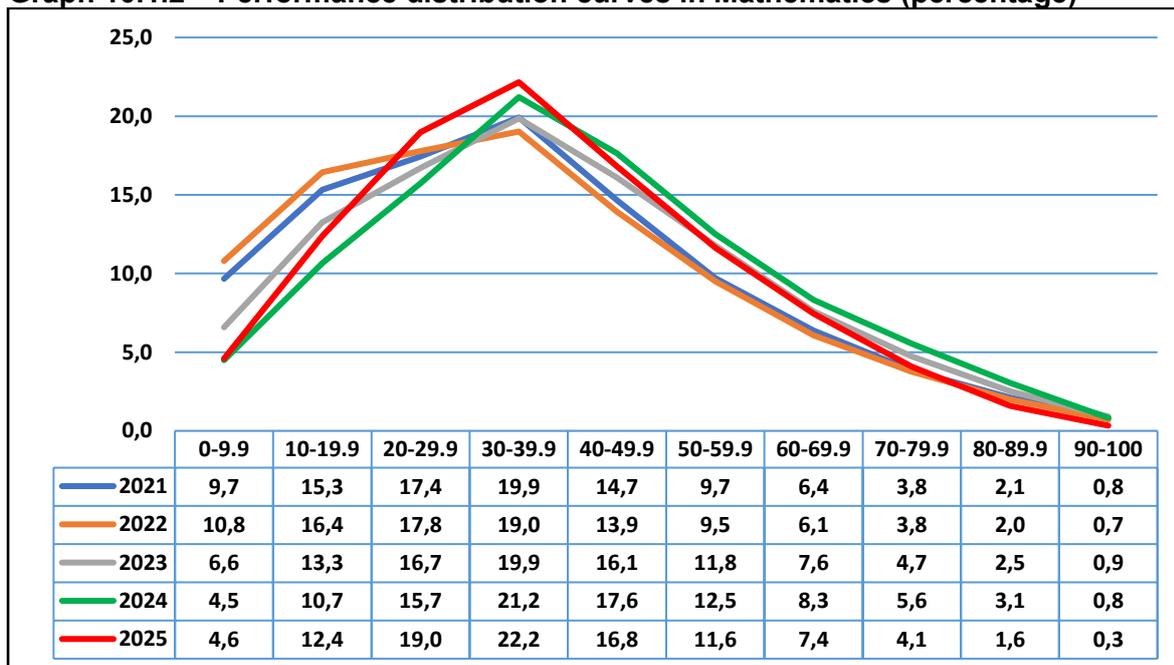
**Table 10.1.1 Overall achievement rates in Mathematics**

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2021	259 143	149 177	57,6	97 561	37,6
2022	269 734	148 346	55,0	97 041	36,0
2023	262 016	166 337	63,5	114 311	43,6
2024	251 488	173 774	69,1	120 430	47,9
2025	254 415	162 947	64,0	106 570	41,9

**Graph 10.1.1 Overall achievement rates in Mathematics (percentage)**



**Graph 10.1.2 Performance distribution curves in Mathematics (percentage)**



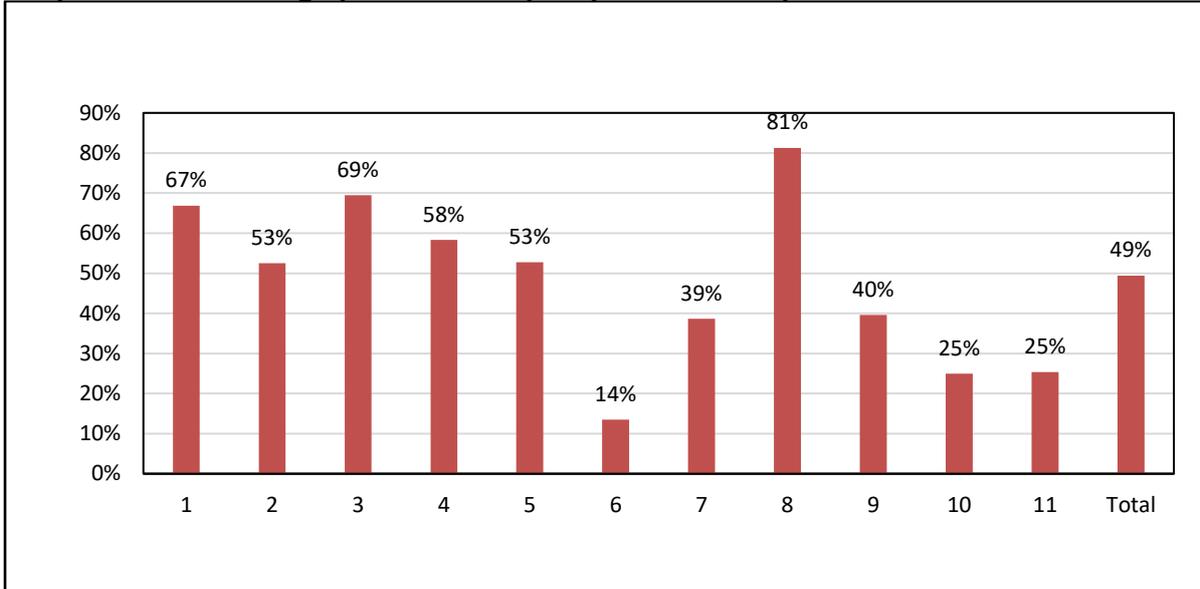
## 10.2 OVERVIEW OF CANDIDATES' PERFORMANCE IN PAPER 1

- (a) The style of questioning was different from previous years making the paper less predictable.
- (b) While calculations and performing well-known routine procedures form the basis of answering questions in a Mathematics paper, a deeper understanding of definitions and concepts cannot be overlooked. Candidates did not fare well in answering questions that assessed an understanding of concepts, even where these questions were accessible to them.
- (c) Many candidates were able to answer the knowledge and routine questions correctly. This suggests that the candidates were well prepared to deal with these questions. Candidates scored some marks in most of the questions.
- (d) The algebraic skills of the candidates were poor. Most candidates lacked fundamental and basic mathematical competencies which should have been acquired in the lower grades. This made manipulation of expressions and complex calculations challenging for many candidates.

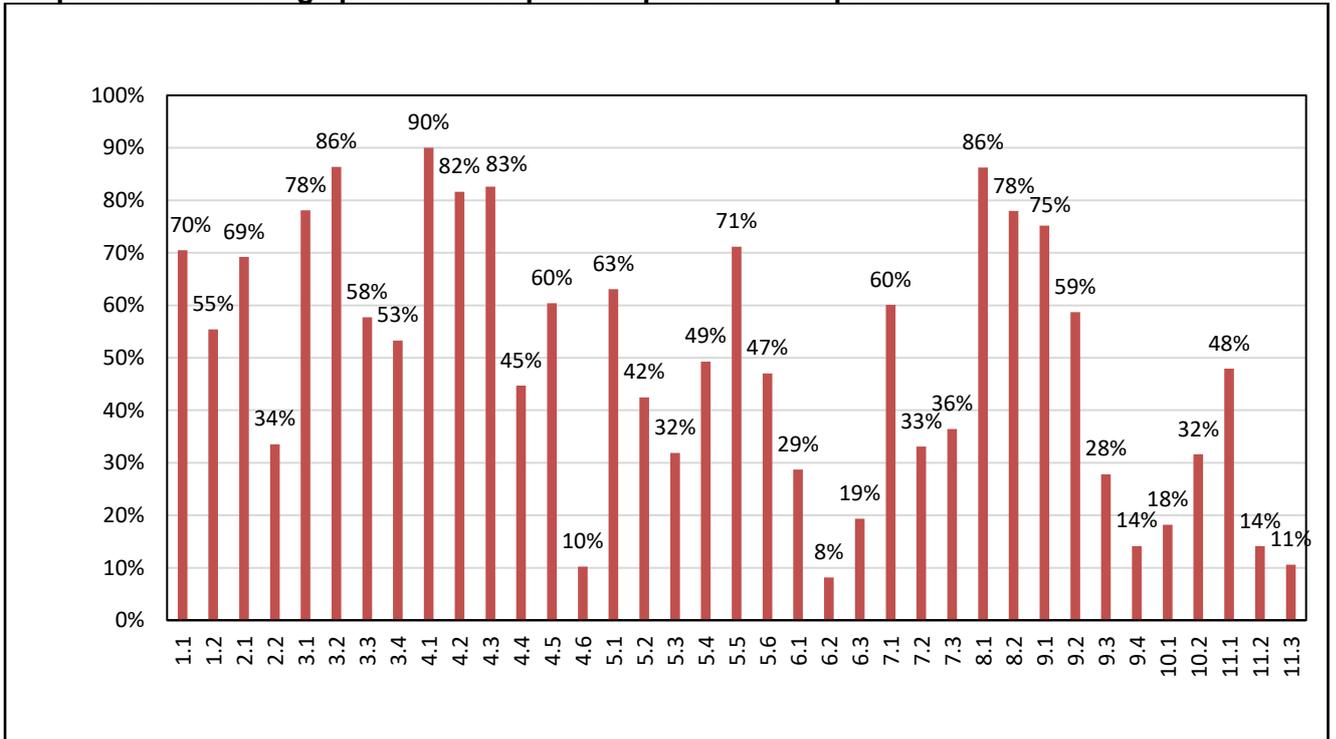
## 10.3 DIAGNOSTIC QUESTION ANALYSIS OF PAPER 1

The following graph is based on data from a random sample of candidates' scripts. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

**Graph 10.3.1 Average performance per question in Paper 1**



**Graph 10.3.2 Average performance per subquestion in Paper 1**



Q	Topics
1	Equations, Inequalities and Algebraic Manipulations
2	Number Patterns and Sequences
3	Number Patterns and Sequences
4	Functions, Graphs and Inverse Functions
5	Functions and Graphs
6	Functions and Graphs

7	Finance
8	Calculus
9	Calculus
10	Calculus
11	Probability and Counting Principles

## 10.4 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 1

### QUESTION 1: ALGEBRA

#### Common errors and misconceptions

- (a) In Q1.1.2 some candidates substituted incorrect values of  $b$  and  $c$  into the quadratic formula because they had not written the equation correctly in standard form. Candidates were still unable to round off their answers correct to two decimal places. Some candidates rejected the answer of  $x = -1,54$ , perhaps because the answer was a negative value.
- (b) In Q1.1.3 many candidates were able to calculate the *critical values* but were unable to identify the correct intervals for the solution to the inequality. They provided the following incorrect answers:  $0 < x < \frac{1}{4}$  or  $x > 0$  or  $x > \frac{1}{4}$ . Other candidates used the word 'and' in the solution, which was incorrect. Notation still seemed to be problematic as some candidates left their answer as  $0 > x > \frac{1}{4}$ .
- (c) Factorising the exponential equation in Q1.1.4 proved to be a challenge for many candidates. Common factorisation errors were that the given equation was factorised to  $2^x(2-9) = -4$  or  $2 \cdot 2^x - 9 \cdot 2^x + 4 = 0$  was factorised to  $2(2x-9+2) = 0$ . Some candidates used the  $k$ -substitution method to answer this question. They correctly arrived at  $k = 4$  or  $k = \frac{1}{2}$  but then failed to solve for  $x$ .
- (d) In Q1.1.5 many candidates found it challenging to work with two *surds* that had fractions in them. Some were able to square both sides of the equation correctly and arrived at  $\sqrt{\frac{1}{x}} + 2 = \frac{1}{x}$ . Thereafter, they incorrectly squared the terms in this equation:  $\left(\frac{1}{\sqrt{x}}\right)^2 + (2)^2 = \left(\frac{1}{x}\right)^2$ . Some candidates converted the *surds* to *exponents*. However, they applied the exponential laws incorrectly. Despite being mentioned in previous reports, candidates still did not check their answers and reject the extraneous solution.
- (e) Most candidates were unable to establish the correct equations from the statements given in Q1.2. The following incorrect equations were established for the second statement:  $5(x+y) = 6x^2$  or  $5(x+y) = 6\sqrt{x}$  or  $5xy = 6x^2$  instead of  $5xy = 6 + x^2$ .

**Suggestions for improvement**

- (a) Learners must ensure that they are able to correctly identify the values of  $a$ ,  $b$  and  $c$  in any *quadratic* equation.
- (b) It must be emphasised that the balance of an equation is maintained by performing the same operation on both sides of the equation. Squaring the individual terms on one side is not the same as squaring an individual term on the other side.
- (c) Learners must be taught to check their solutions when using the squaring technique to solve an equation that is not originally quadratic, as well as to check the validity of solutions generated in *exponential* equations. Teachers must emphasise that implicit restrictions are placed on *surd* equations.
- (d) *Quadratic inequalities* should be taught in relation to the *quadratic function*. Notation in *quadratic inequalities* should be emphasised. Graphical tools should be shown to the learners to ensure they understand what the mathematical notation means on a graph.
- (e) Exponential rules, manipulation and equations should be practised. Learners should understand when to use the technique of equating *exponents* because the *bases* are the same, and when to factorise. Simplification of *exponential expressions* and solving *exponential equations* are equally important.
- (f) Teachers must make time to revise work involving algebraic manipulations and exponential laws.
- (g) Word problems in earlier grades should not be ignored. Translating words to mathematical statements is an important skill in understanding mathematical language.
- (h) As suggested in previous reports:
- Teachers should not take for granted that learners know how to round off a number to the required number of places. Where necessary, this skill should be retaught in Grades 11 and 12. Teachers should penalise learners in class work and SBA tasks when they do not round off to the correct number of places.
  - Teachers should take some time, preferably in Grade 10, to focus on teaching learners how to represent inequalities (e.g.  $0 < x < \frac{1}{4}$ ) on a number line and how to also write an inequality from the illustration on a number line. This will benefit learners as they are required to write inequality solutions for a number of questions in both examination papers. Emphasis on the correct notation is essential when writing down the solutions to inequalities.
  - Linked to this, teachers should explain the difference between 'and' and 'or' in the context of inequalities. Learners cannot use these words interchangeably as they have different meanings.

**QUESTION 2: PATTERNS****Common errors and misconceptions**

- (a) Candidates failed to cross multiply and expand the resulting brackets correctly when answering Q2.1.1. Some candidates substituted  $t = -2$  into the given expression instead of proving that  $t = -2$ . These candidates did not understand the question.

Some candidates incorrectly assumed this to be an *arithmetic sequence* and generated an equation of differences between the terms. They were not awarded any marks.

- (b) Many candidates were able to determine the terms in the sequence and calculate the value of  $r$  correctly. However, they did not simplify their answer to  $b^x$  as required and instead gave their answer in the form  $a.b^x$ . Most learners who relied on their calculators to simplify expressions and equations could not reach the required answer in the simplest form. They were not awarded a mark for this.
- (c) When answering Q2.1.3 some candidates were oblivious to the fact that  $-1 < r < 1$  for a *converging geometric sequence*. Instead, they incorrectly used a value of  $r$  that was outside this interval. Other candidates incorrectly used the finite sum formula,  $S_n = \frac{a(r^n - 1)}{r - 1}$ , when answering this question.
- (d) In Q2.2.1 some candidates incorrectly calculated the *common difference* instead of calculating the difference between  $T_6$  and  $T_{14}$ .
- (e) The errors made when answering Q2.2.2 showed that candidates had poor understanding of the concept of *sigma notation*. They were unable to calculate the number of terms in the series correctly. Many of them incorrectly indicated that there were  $117 - k$  terms in the series. The first term of the series was incorrectly calculated as  $4(1) - 1$  instead of  $4(k) - 1$ . Some of them did not know that the sum of this series of terms was 26 675.

### Suggestions for improvement

- (a) Teachers should emphasise the difference between *arithmetic* and *geometric sequences*.
- (b) Learners need to be made aware that when a question requires them to 'show that ...', they may not use this information as given. Instead, they must perform some calculations and arrive at the answer given in the statement. Learners should master the simplification of expressions and equations to the simplest form.
- (c) Teachers should explain the concept of a *converging geometric series* by generating two *geometric series*, one with the value of  $r$  between  $-1$  and  $1$  and the other having the value of  $r > 1$ . Learners should observe the value of the sum of the first  $n$  terms as more terms are added to the series.
- (d) The concepts of  $S_n$  and  $S_\infty$  should be explained and the difference between them should be demonstrated as a series of terms.
- (e) A solid foundation of *sigma notation* should be emphasised in the classroom. Learners should be exposed to both calculating from given *sigma notation*, and writing information from a given pattern into *sigma notation*. This should give them a better understanding of the concept.
- (f) Exercises in number patterns should include variables so that learners will be able to attempt higher order questions on this topic.

**QUESTION 3: PATTERNS****Common errors and misconceptions**

- (a) Many candidates used the *general term* given in Q3.2 to answer Q3.1. This was not acceptable and they were not awarded any marks in this instance. Some candidates incorrectly calculated the *first differences* as being:  $-35$  ;  $-33$  ; ... This resulted in an incorrect value of the fifth term.
- (b) In Q3.2 some candidates incorrectly used  $2a + b = 35$  instead of  $3a + b = 35$ .
- (c) In Q3.3 many candidates could not link maximum depth with a positive value. Some candidates were able to calculate that the maximum depth occurs at  $n = 19$  but then did not proceed to calculate the maximum depth as required in the question.
- (d) Many candidates did not realise that they could use the axis of symmetry to answer Q3.4. Those who did use the axis of symmetry gave the answer as 32 seconds instead of the correct answer of 35 seconds. Many candidates opted to solve the equation  $T_n = 104$ . However, they gave both answers instead of the time at which the submarine will be at 104 metres for the second time, namely at 35 seconds.

**Suggestions for improvement**

- (a) Teachers should expose learners to questions on number patterns that are based on real-life contexts.
- (b) Teachers must show the link between the *quadratic number pattern* and the *quadratic function* as many concepts of the *quadratic function* are tested in *quadratic number patterns*.
- (c) Teachers should ask learners to interpret context-based questions and explain which mathematical concept is required to respond to it. In addition, teachers should encourage learners to ensure that their response is relevant to the context.

**QUESTION 4: FUNCTIONS (EXPONENTIAL FUNCTION AND ITS INVERSE)****Common errors and misconceptions**

- (a) Candidates were able to swop  $x$  and  $y$  when determining the *inverse* in Q4.3. However, some of them were unable to write the equation of the *inverse* correctly. Many wrote the answer as  $f^{-1}(x) = x^{\frac{1}{3}}$ ; they incorrectly switched the *base* and *exponent* in the answer.
- (b) In Q4.4 a fair number of candidates incorrectly wrote the equation of the *asymptote* as  $q = 0$  or  $x = 0$  instead of  $y = 0$ .
- (c) Many candidates were able to plot the points correctly when answering Q4.5 but they were unable to draw the correct shape.
- (d) Many candidates were unable to interpret Q4.6 correctly. A significant number of candidates who attempted this question, incorrectly wrote the interval in terms of  $x$  instead of  $y$ .

**Suggestions for improvement**

- (a) Point-by-point plotting of graphs is important for learners to understand the shape of graphs. However, teachers must teach with conceptual understanding. Emphasis should be placed on the understanding of the *asymptote* of a function.
- (b) The general form of functions and their shapes should be emphasised from Grade 10 and revised every time a functions question is worked through in class. In addition, the effects of the parameters  $a$ ,  $b$ ,  $p$  and  $q$  should be thoroughly taught, revised and practised by learners from the introduction of functions in Grade 10 through to the end of the Grade 12 academic year.
- (c) Teachers should ensure that learners work with *transformations* in functions from Grade 10. This should include *point transformation*, recognition of the *transformation* applied to one function's equation to result in another and the rules of *reflection*, *horizontal* and *vertical shifts* on the equation of a function.
- (d) Learners should be allowed to investigate the *inverse* of a function. They should explore the idea of swapping the  $x$ - and  $y$ -coordinates and observing how the *inverse* is different from the original function.

**QUESTION 5: FUNCTIONS (HYPERBOLA AND PARABOLA)****Common errors and misconceptions**

- (a) In Q5.1 some candidates wrote the answer as  $x \in R, x = 3$  instead of  $x \in R, x \neq 3$ . They did not exclude the *asymptote* from the *domain*. This confirms that some candidates did not understand the concept of *asymptote*.
- (b) Q5.2 required candidates to write down the *range* of the parabola. Many candidates excluded the *turning point* in their answer and wrote the answer as  $y < 8$  or  $(-\infty; 8)$ . This was incorrect.
- (c) Many candidates were able to establish the correct *critical values* when answering Q5.3. However, they were unable to identify the correct regions from the graphs and state the intervals correctly. In Q5.3.1 many candidates incorrectly wrote the answer as  $3 < x < 5$  or  $3 \leq x \leq 5$ . In Q5.3.2 many candidates were confused about using 'and' and 'or' when stating intervals and wrote  $x < 1$  and  $x > 5$ . This answer was incorrect. Some candidates used the equation of function  $f$  given in Q5.4 to answer Q5.3.1 and Q5.3.2. They tried to solve the following inequalities algebraically:  

$$\frac{-4}{x-3} \leq -\frac{1}{2}x^2 + 3x + \frac{7}{2} \quad \text{and} \quad -\frac{1}{2}x^2 + 3x + \frac{7}{2} < 6.$$
They were not awarded any marks for their efforts as they did not determine the equation of  $f$  before using it.
- (d) In Q5.4 many candidates incorrectly took the value of  $p$  to be 3 instead of  $-3$ .
- (e) When answering Q5.5 some candidates stated that the coordinates of M were  $(-1; 0)$  without showing any working. They were not awarded full marks for omitting the necessary working.
- (f) Many candidates had difficulty in calculating the *gradient* of the *tangent* in Q5.6. A large number of candidates incorrectly calculated the *average gradient* between points D and P. Other candidates incorrectly took the *gradient* of the *tangent* as  $-1$ .

**Suggestions for improvement**

- (a) Learners must be made aware that assuming facts without first proving it is not acceptable when answering questions. In this regard, learners must show all working steps and may not use the result given in a latter question to answer a question that precedes it.
- (b) Teachers should pay more attention to establishing the *domain* and *range* from the graph of a given function.
- (c) Teachers should demonstrate how to read off answers from a single graph to the following statements:  $f(x)=0$ ,  $f(x)=k$ ,  $f(x)<0$ ,  $f(x)>0$ ,  $f(x)\leq 0$ ,  $f(x)\geq 0$ ,  $f(x)<k$ , etc. They should start with the *straight-line* graph and then progress to the other graphs in Grade 10. This should help learners understand how to read off answers when a question has a combination of graphs.
- (d) Many learners can calculate the *derivative* of a function but they cannot interpret the answer. The concept of *derivative* must be stressed as being the *gradient of a tangent to a curve*. Learners must be exposed to determining the *gradient* of a *tangent* to any curve and not just the *cubic* curve.

**QUESTION 6: FUNCTIONS (HYPERBOLA and STRAIGHT LINE)****Common errors and misconceptions**

- (a) In Q6.1 some candidates incorrectly wrote the coordinates of the  $x$ -intercept as  $(p; 0)$  instead of  $(-p; 0)$ .
- (b) When answering Q6.2 most candidates were unable to determine the coordinates of the points along the *straight-line* in terms of *variables*. Consequently, they were unable to derive equations that were required to answer the question. A few candidates were able to derive the correct equations, but had difficulty in solving them simultaneously. Some candidates used the fact that the  $x$ -coordinate of one point on the straight line was 1 and assumed the  $x$ -coordinates of other points on the straight line. This was treated as a breakdown.

**Suggestions for improvement**

- (a) Teachers need to emphasise that learners cannot assume information in a given scenario.
- (b) Learners should be exposed to higher-order questions in earlier grades and not only in Grade 12.

**QUESTION 7: FINANCE****Common errors and misconceptions**

- (a) In Q7.1 some candidates incorrectly used the *simple interest* formula instead of the *compound interest* formula. Other candidates swapped the values of  $A$  and  $P$  in the formula. This was considered a breakdown.
- (b) In Q7.2 many candidates were unable to calculate the correct period of the investment and consequently were unable to calculate the correct number of deposits made. In

addition, many candidates did not realise that the last deposit was made one quarter before the investment was withdrawn and therefore the *annuity* earned additional interest for this quarter. Some candidates incorrectly used the *present-value* formula instead of the *future-value* formula.

- (c) Q7.3.1 was poorly answered by the majority of the candidates. Some candidates overlooked the fact that the loan would have accrued interest on account of three missed payments. Other candidates incorrectly used the *future-value* formula instead of the *present-value* formula. Some candidates calculated the number of payments required to settle the loan but did not add the three months for which payments were missed when calculating the total time needed to settle the loan.
- (d) The common errors in Q7.3.2 were that candidates used the incorrect value of  $n$  in the formula selected to calculate the outstanding balance and they failed to add one month's interest to the outstanding balance when calculating the final payment.

### Suggestions for improvement

- (a) Learners should be taught to read for understanding in all problems, especially in Financial Mathematics problems. Teachers need to emphasise the importance of this skill.
- (b) It may help to have learners draw timelines and identify what happens at different stages of an *annuity* (either present or future valued). Visual representation helps to break up a problem that requires reading for understanding. This also helps with determining the time-period when dates are given in the question.
- (c) Drills and practice should be undertaken on different *compounding periods* and the *compound interest* formulae so that learners can familiarise themselves with the number of times that interest is compounded in a specified time frame.
- (d) Teachers should teach Financial Mathematics with conceptual understanding and real-life problems.

## QUESTION 8: CALCULUS

### Common errors and misconceptions

- (a) As mentioned in previous reports, the most common errors in Q8.1 (the *first principles* question) were incorrect notations. A few candidates left out  $h$  in the denominator. Some candidates changed the question from a linear ( $f(x) = -2x + 3$ ) to a quadratic ( $f(x) = -2x^2 + 3$ ), possibly because they were only exposed to questions that contained quadratic expressions and not linear expressions. They were not awarded marks for their responses.
- (b) Many candidates were unable to write the expression given in Q8.2.2 in differentiable form.

### Suggestions for improvement

- (a) As mentioned in previous reports:
- Emphasis should be placed on the use of the correct notation when determining the derivative, either when using *first principles* or the rules.

- Teachers should revise the rules of *exponents* and *surds* when changing an expression into differentiable format.
  - Integration and re-emphasis of algebraic concepts, viz. fractions, factorising, inequalities and exponential rules, should be undertaken when working with Calculus.
- (b) Teachers need to cover the *derivative* using *first principles* of all the functions prescribed in CAPS and not only focus on the quadratic function.

## QUESTION 9: CALCULUS

### Common errors and misconception

- (a) Many candidates did not explicitly state that  $f'(x)=0$  when calculating the  $x$ -coordinates of the turning points. A mark was deducted for this omission.
- (b) In Q9.2 some candidates were able to calculate the  $x$ -coordinate of the *point of inflection* correctly but were unable to state the interval for which the graph was *concave down* correctly. They wrote  $x > \frac{8}{3}$  instead of  $x < \frac{8}{3}$ .
- (c) Many candidates attempted to solve Q9.3 by using algebraic methods despite the question advising candidates to use the graph. However, the resulting inequality became too complex for them to solve. As was stated elsewhere in the report, some candidates failed to write down the interval correctly. They included the endpoints of the interval instead of excluding them.
- (d) When answering Q9.4 many candidates did not see the link between the *gradient* of the *tangent* and the *derivative* of the function. Instead, they equated the *gradient* of the *tangent* to the given function. This constituted a breakdown and they were not awarded any marks.

### Suggestions for improvement

- (a) Teachers must not accept sloppy notation in school-based assessment tasks. This will force learners to pay attention to the details of their answers.
- (b) Teachers need to reinforce the concepts of *concave up* and *concave down*, both from the perspective of the graph and from calculations.
- (c) Learners need to be exposed to graphical interpretation questions where they apply their understanding of *gradient*, *concavity*, *positive* and *negative* values of a function as examples.
- (d) Teachers should continue to teach graphical interpretation in *cubic* graphs as a follow-on from the interpretation taught in Grade 10 and 11. Both notations should be used from Grade 10 so that learners can translate from one notation to the other with ease.

## QUESTION 10: CALCULUS (OPTIMISATION)

### Common errors and misconceptions

- (a) Many candidates did not attempt Q10.1 despite it being a familiar problem. Some of those who did attempt this question used the incorrect formula for the perimeter. They

used  $P = x + h$  instead of  $P = 2x + 2h$ . Other candidates incorrectly used  $x$  as the diameter of the cylinder. These candidates did not realise that  $x$  was the circumference of the cylinder.

- (b) In Q10.2 some candidates equated the volume to zero instead of the *derivative* of the volume to zero, i.e. they solved for  $x$  in the equation  $V(x) = 0$  instead of  $V'(x) = 0$ . Many candidates struggled to determine the *derivative* of the volume because the expression contained  $\pi$ . They did not realise that  $\pi$  is a *constant* and instead treated it as a *variable*. Some candidates arrived at two answers for  $x$  but did not discard  $x = 0$ , the extraneous answer.

### Suggestions for improvement

- (a) The topic of optimisation cannot be ignored in the teaching plan. As was seen in this examination, learners lose out on obtaining accessible marks if the topic is not covered adequately.
- (b) Using physical resources as a teaching tool will improve the conceptual understanding of measurement.
- (c) A ready reference chart/worksheet on the formulae for measurement of various shapes should be developed for learners.

## QUESTION 11: PROBABILITY

### Common errors and misconceptions

- (a) In Q11.1.1 many candidates failed to correctly apply the *independent* rule:  $P(M \text{ and } J) = P(M) \times P(J)$  to calculate that the value of  $e$  was 84 as given in the question. A number of candidates used  $e = 84$  and then proved that the events male and choosing juice were *independent*. They were not awarded marks for this response.
- (b) Many candidates were able to correctly calculate the values in the table when answering Q11.1.2. However, they were unable to determine the probability correctly. They read off the incorrect values in the table.
- (c) Many candidates did not realise that they could have answered Q11.2 by making use of a *tree-diagram* and therefore they did not answer the question.
- (d) Q11.3.2 required candidates to establish different counting options to solve the problem. This proved to be difficult for many candidates.

### Suggestions for improvement

- (a) Learners need to be taught the difference between *mutually exclusive* and *independent* events and the rules that pertain to each of these concepts. This should be thoroughly drilled in Grades 10 and 11.
- (b) Teachers need to expose learners to different contexts, diagrams and problems in which *independent* events can be tested.
- (c) As mentioned in previous reports:
- Teaching basic concepts cannot be overlooked. When learners understand the basic concepts well enough, then the more complex concepts are easier to grasp.

- Reading for understanding must be a regular practice in the classroom. This should equip learners with the skills to deal with word problems in assessment tasks.
- (d) Teachers need to teach both *tree diagrams* and *Venn diagrams* thoroughly. These concepts should be examined in school-based assessment tasks throughout the FET phase.
- (e) Teach learners the *Fundamental Counting Principle* in such a way that they will be able to base their answers on their reasoning, rather than on any rule. The concept of the *factorial* needs to be explained thoroughly.
- (f) When teaching learners about the number of options available for a code or set of items, it is a good idea for learners to draw lines or boxes to represent each space that is available. Thereafter, learners need to be taught to recognise how many options are available for each position in the code or list of items. It is important to stress to learners that they should put an 'x' between these numbers so that they can arrive at the correct solution using the *Fundamental Counting Principle*.

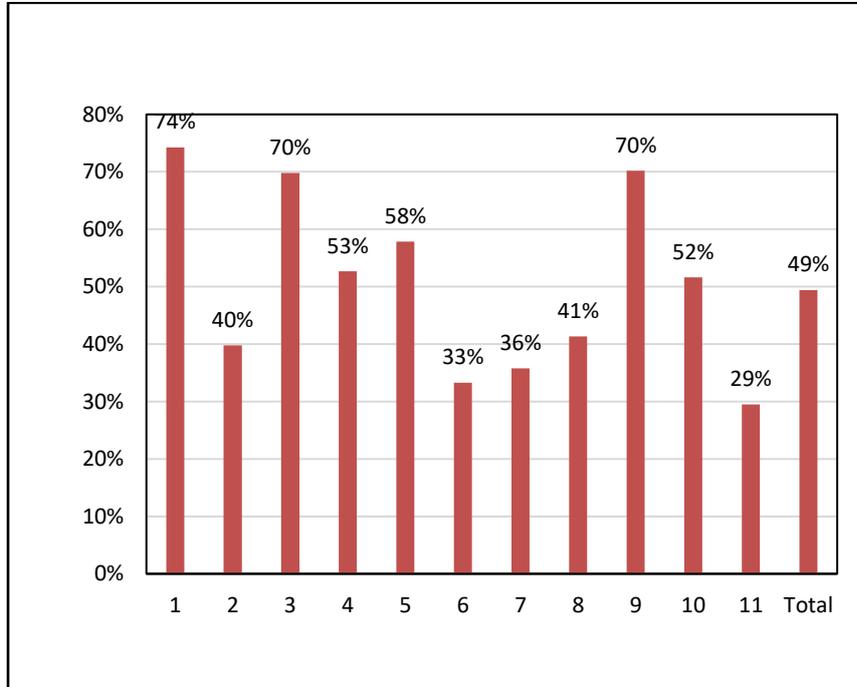
## 10.5 OVERVIEW OF CANDIDATES' PERFORMANCE IN PAPER 2

- (a) Although the question paper felt familiar to candidates, the questions required candidates to answer with understanding rather than with only procedural answers. This will require many teachers to adjust their way of teaching and teach the entire curriculum with understanding rather than using the last five years' past papers to drill the candidates in answering each topic.
- (b) Candidates were not careful when using a calculator, especially in the Statistics questions. They entered the data incorrectly and arrived at answers that were close to the correct answer. This resulted in an unnecessary loss of marks.
- (c) Candidates made assumptions about features in a question by looking at the diagrams in the Analytical Geometry and Euclidean Geometry sections. They used these assumptions in their answers without first proving that the relationship is true. Candidates who made use of assumptions in their answers were penalised.
- (d) Candidates struggled with questions that involved the integration of topics.
- (e) As mentioned in previous reports, candidates needed to exercise caution with algebraic manipulation skills since overlooking certain basic principles or practices results in the unnecessary loss of marks.
- (f) Candidates presented incoherent answers to Euclidean Geometry questions. They need to be aware that they are not awarded for correct statements that do not follow logically.
- (g) Candidates struggled with reasoning in problem-solving questions which required analysis of the information given and critical thinking to devise a plan of action to solve the problem.

## 10.6 DIAGNOSTIC QUESTION ANALYSIS FOR PAPER 2

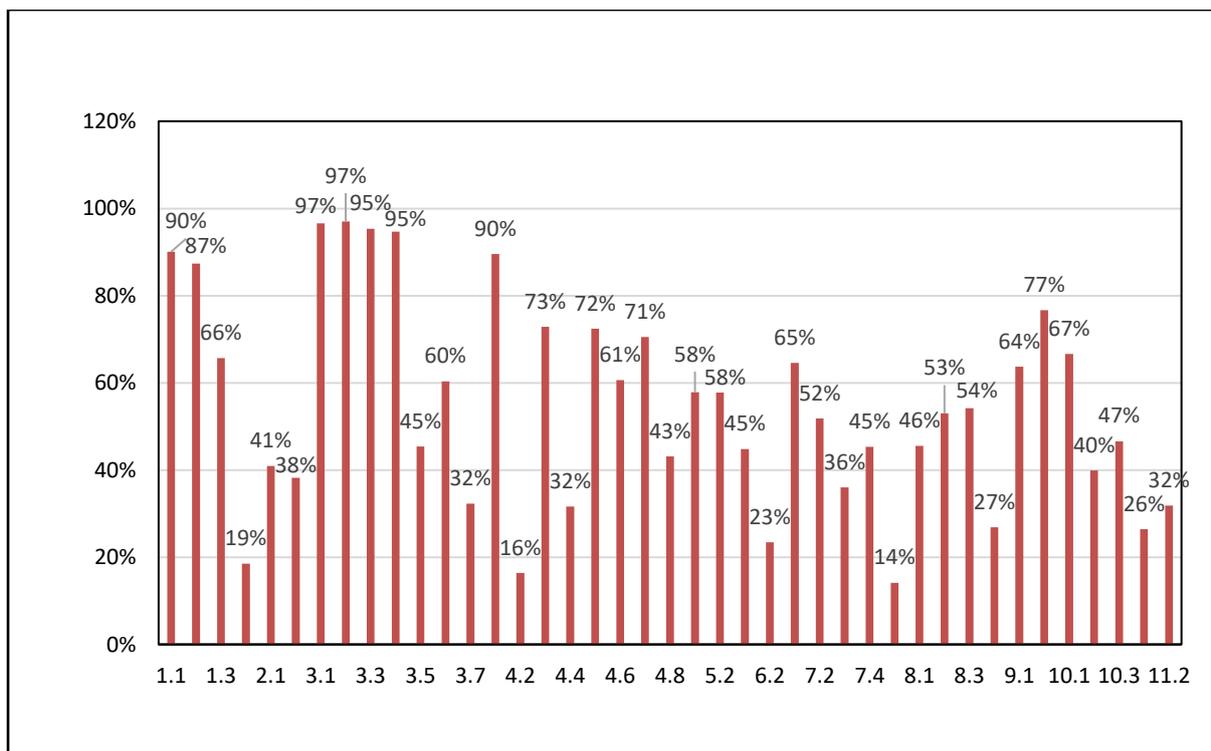
The following graph was based on data from a random sample of candidates' scripts. While this graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by candidates.

**Graph 10.6.1 Average performance per question in Paper 2**



Q	Topic(s)
1	Data Handling
2	Data Handling
3	Analytical Geometry
4	Analytical Geometry
5	Trigonometry
6	Trigonometry
7	Trigonometry
8	Trigonometry
9	Euclidean Geometry
10	Euclidean Geometry
11	Euclidean Geometry

**Graph 10.6.2 Average performance per subquestion in Paper 2**



## 10.7 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 2

### QUESTION 1: DATA HANDLING

#### Common errors and misconceptions

- (a) When writing the equation in Q1.1, many candidates interchanged the values of  $a$  and  $b$ . Another common error in this question was that candidates failed to round off their answers for  $a$  and  $b$  correctly to two decimal places. Some candidates did not enter the data correctly into the calculator. They arrived at answers that were close to the correct answers for  $a$  and  $b$ .
- (b) In Q1.2 some candidates tried to predict the selling price of a car that is 5 years old from the table rather than using the equation of the *least squares regression* line.
- (c) Many candidates struggled to interpret and use the *correlation coefficient* in Q1.3. They gave the answer as 'strong negative correlation'. This showed a lack of understanding of the reason behind this calculation and reading for understanding when answering Q1.3.
- (d) Most candidates were unable to link the *least squares regression* line to a *straight-line* function. This resulted in a large majority of candidates being unable to write down the estimated average yearly decrease in the selling price of the cars in Q1.4.

#### Suggestions for improvement

- (a) It should not be taken for granted that learners are able to round off correctly to two decimal places. In this regard, an exercise on rounding can help correct any misconceptions.
- (b) Teachers should link the equation of the *least squares regression* line ( $y = a + bx$ ) with the equation of the *straight-line* and emphasise that ' $a$ ' refers to the *y-intercept* and ' $b$ ' refers to the *gradient*. This requires teachers to integrate these topics and not teach them in isolation.
- (c) As stated in previous reports, when determining the equation of the *least squares regression* line, it is advisable that learners write down the values of  $a$  and  $b$  and then write down the equation of the regression line. In this way, they can get the CA mark for the equation.
- (d) Learners need to be taught the meaning of the *correlation coefficient* rather than just describe the association between the variables as *strong/weak* and *negative/positive*. Teaching for understanding is necessary.
- (e) As mentioned in previous reports, learners should be able to use the values of their calculations to make predictions and comments about the data. Time should be devoted to interpretation questions.
- (f) Statistical language and contexts should be used in class when teaching *data handling* as learners will then become familiar with the terminology used and be able to differentiate between the concepts being tested in the various questions.

- (g) As indicated in previous reports, the concept of *independent (y)* and *dependent (x) variables* should be emphasised when working with the equation of the *least squares regression* line. The *y value* depends on the *x value* and not vice versa.

## QUESTION 2: DATA HANDLING

### Common errors and misconceptions

- (a) Many candidates struggled to interpret the given cumulative frequency table and found it challenging to calculate the *frequencies* for each *class interval*. Consequently, they were unable to answer Q2.1.2 and Q2.1.3 correctly. A reason for this could be the lack of correct reading of each interval and the assumption that the cumulative frequency table given was similar to the frequency tables found in previous years' question papers. The total for the number of people who visited the website in a day was incorrectly answered as 252 instead of 70.
- (b) A large number of candidates used the *cumulative frequencies* to draw the *histogram* in Q2.1.3. Others incorrectly drew *bar graphs* or *ogives* instead of the *histogram* required. They were not awarded marks for this.
- (c) In Q2.1.4 many candidates struggled to interpret the skewness of the data from the *histogram*.
- (d) Q2.2 required candidates to read with understanding. Many candidates worked only with the data of the 8 learners given and not 9 as required. As a result, the *standard deviation* was calculated incorrectly. This affected the answers of the rest of the question.
- (e) There were many candidates who were unable to understand and communicate the relationship between the *data points* that were outside one *standard deviation* of the *mean*.

### Suggestions for improvement

- (a) Reading for understanding is a fundamental requirement in the *Statistics* section and must be developed in classroom activities.
- (b) The poor performance in Q2 was largely due to misreading of *statistical tables*, confusion between *frequency* and *cumulative frequency*, and weak conceptual understanding of *mean* and *standard deviation* adjustments. These errors highlight the need for stronger emphasis on reading for understanding, correct interpretation of *cumulative frequency* tables, and conceptual teaching of statistical measures.
- (c) Teachers need to revise the graphs taught in lower grades. This teaching must include clearly distinguishing between the parameters and needs of the different graphs.
- (d) *Measures of central tendency* and *dispersion* need to be taught for both *ungrouped* and *grouped* data. The focus of teaching should be on the clear understanding of the concept rather than the calculation of values.
- (e) Much of this question was based on *cumulative frequency*, which is done in Grade 11. Revision of Grade 11 work in Grade 12 will assist learners to prepare for the examinations.

### QUESTION 3: ANALYTICAL GEOMETRY

#### Common errors and misconceptions

- (a) Some candidates were unable to substitute correctly into the distance formula when answering Q3.1. Other candidates calculated the length of PQ instead of PR.
- (b) In Q3.2 some candidates swapped the  $x$ - and  $y$ -values around when substituting into the gradient formula.
- (c) Some candidates were unable to use the answer calculated in Q3.2 when answering Q3.3.
- (d) Q3.5 was poorly answered by most candidates. Candidates did not read the order of the parallelogram PQRS and subsequently calculated S in the incorrect quadrant. Most candidates were unaware that *transformation* and *translation* concepts could be used for the calculation of the fourth vertex of a parallelogram.
- (e) Q3.6 was not well answered by most of the candidates as they assumed that T was the midpoint of QR. Other candidates did not realise that T was the point of intersection of lines PT and QR.
- (f) In Q3.7 many candidates were able to calculate the *area* of the parallelogram PQRS. Various errors were made in the use of the sine rule as incorrect angles were selected from the diagram, others interpreted PQRS as a rectangle (ignoring the information provided to them in the question), others used the *shoelace method* and were only awarded full marks if their answer was correct and a large number of candidates assumed that two of the sides were perpendicular to each other.

#### Suggestions for improvement

- (a) As stated in previous reports, if learners are not sure, they should consult the information sheet for the correct formula.
- (b) It is important that learners realise that it is not acceptable to make any assumptions, e.g. that a certain point is the midpoint of a line; two lines are perpendicular to each other or that a triangle is isosceles.
- (c) Teach learners to analyse diagrams in Analytical Geometry and to use relevant properties to respond to questions.
- (d) Teachers should teach learners how to calculate the fourth vertex of a parallelogram using the *transformation* method.
- (e) As stated in previous reports, learners should be advised that they need to fill in the calculated values and additional information on their sketch in the answer book as they proceed with subquestions. This helps them visualise what information is at their disposal when answering the next sub-question.
- (f) Teach learners how to identify when to use which formula:  $\text{area} = \frac{1}{2} \text{base} \times \text{height}$  or  $\text{area} = \frac{1}{2} a.b.\sin C$  when calculating the area of a triangle.

- (g) Learners should be advised to expect that Euclidean Geometry facts and Trigonometry will be integrated into Analytical Geometry and will be needed in the answering of some Analytical Geometry questions.
- (h) When teaching Analytical Geometry, teachers need to revise the concepts of *perpendicular* and *parallel* lines with respect to *gradient*, simultaneous equations (linking to functions), *inclination* and correct calculations of *surds*. This revision should also include emphasising that the calculation of the equation of a *straight-line* depends on the points on that line and not any points appearing on the diagram.
- (i) The properties of all quadrilaterals must be taught in earlier grades and used in classwork and tasks through the later grades.

#### QUESTION 4: ANALYTICAL GEOMETRY

##### Common errors and misconceptions

- (a) Most candidates struggled to show  $q = 4$  in Q4.2. This was due to candidates not being able to recognise right-angled triangles and that radii  $AM = ME = q + 1$ . Many of these candidates assumed  $AD = 3$  units.
- (b) Candidates were able to identify the centre of the circle in Q4.3 but many struggled to calculate the value of the radius, possibly because these candidates did not realise that point E lies on the circumference of the circle.
- (c) In Q4.4 many candidates misread the question and made assumptions of what they thought the question may be asking. Evidence of this was that these candidates added 2 units to the  $x$ -value of  $-6$ .
- (d) Candidates who struggled with Q4.5 made the following errors: substituted  $(y - 4)^2 = 0$  rather than just  $y = 0$ , swapped the values of  $x$  and  $y$  around or equated each of the brackets to 25.
- (e) Most candidates calculated the *gradient* of BC in Q4.6 without first calculating the coordinates of the point C. Other candidates who struggled with Q4.6 were unable to recall that the *radius* of a circle is *perpendicular* to its *tangent* or their formula for the *gradient* was incorrect despite this being given in the information sheet.
- (f) While many candidates knew the method for solving Q4.7, their equation of BC was incorrect from Q4.6 which negatively impacted them in this question. Other candidates assumed the  $y$ -value of C to be  $-2$ .
- (g) Q4.8 was challenging for the majority of candidates as it required a multistep approach to arrive at the answer. Candidates used *gradients* that did not relate to the required angle; calculated distances and used these in an incorrect trigonometric ratio or assumed E to be the midpoint of DC. Some candidates introduced an angle  $\theta$  in their working but did not indicate this on their sketch. They then went on to calculate many other angles but also referred to each of them as  $\theta$ . These candidates became confused about the correct size of each of the angles calculated.

##### Suggestions for improvement

- (a) As mentioned in previous reports, teachers need to revise the concept of *perpendicular lines* and *gradients*, particularly that the *tangent* is *perpendicular* to the *radius* at the *point of contact*.
- (b) Learners should practise using a formula to get an answer (e.g. using the formula to calculate the coordinates of the midpoint), as well as to calculate an unknown variable if the answer has been given (e.g. calculate the coordinates of an endpoint if one endpoint and the midpoint are given).
- (c) Teachers should aim at developing in learners the ability to reason logically and to write down the steps in their reasoning.
- (d) For learners to be able to reason and answer complex questions, they need a very good understanding of basic concepts, including those from lower grades. Regular revision of these concepts can help consolidate understanding them.
- (e) As mentioned in previous reports, learners need to be taught to read with understanding. This is vital in answering any question posed to the learner.

### QUESTION 5: TRIGONOMETRY

#### Common errors and misconceptions

- (a) In Q5.1 some candidates struggled to interpret  $\tan 50^\circ = k$  in terms of trigonometric definitions, resulting in them not being able to calculate the adjacent, opposite and hypotenuse of the right-angled triangle in terms of  $k$ . Many candidates were unable to apply Pythagoras' theorem correctly and these candidates calculated  $r = \sqrt{k^2 - 1}$  or  $r = \sqrt{1 - k^2}$ .
- (b) In Q5.1.2 some candidates were unable to identify the double angle expansion given in the question or that the denominator had a common factor of  $-2$  before the double angle formula of  $\cos 2\theta$  could be used.
- (a) Q5.1.3 was not well answered as many candidates did not realise that  $10^\circ$  could have been written as  $50^\circ - 40^\circ$ . Thereafter, they could have used the *compound angle* formula for either *sine* or *cosine* to obtain the answer. Other candidates showed weak algebraic skills when answering Q5.1.3.
- (b) Some candidates were unable to apply *co-ratios* correctly in Q5. In Q5.1.3 some incorrectly wrote  $\sin 10^\circ = \sin 80^\circ$  and in Q5.2.1 they incorrectly wrote  $\cos(90^\circ + x) = \cos x$ .
- (c) Q5.2.2 was poorly answered by candidates, if attempted at all, as they failed to recall that a *square root* must be positive when presented in the form given, or that the denominator of a fraction may not be 0.

#### Suggestions for improvement

- (a) Teachers should ensure that all learners are able to answer any type of definition question using trigonometric ratios. Regular revision of Grade 10 and 11 Trigonometric concepts can help consolidate this work.

- (b) As stated in previous reports, remind learners that the same simplification skills used in Algebra also apply to Trigonometry. Revise addition, subtraction and simplification of algebraic fractions with learners before teaching simplification of trigonometric expressions and proving trigonometric identities. This revision should also include the understanding of when a number is undefined (division by 0) or non-real (square root of a negative number) and interval or inequality notation.
- (c) Teachers should emphasise the use of the information sheet when working with compound angles. This has been emphasised in numerous previous reports.
- (d) Teachers should expose learners to questions on trigonometric ratios involving combinations of compound angles, angles greater than  $360^\circ$  and co-ratios.
- (e) As mentioned in previous reports, teachers must discuss the difference between an angle and a trigonometric ratio at the beginning of the study of Trigonometry in Grade 10. The relevance of an angle in the trigonometric ratio must be emphasised.
- (f) Teachers should expose learners to a few methods of simplifying trigonometric expressions. However, they should develop skills in learners that allow them to answer questions in the most efficient way.

## QUESTION 6: TRIGONOMETRY

### Common errors and misconceptions

- (a) In Q6.1 some candidates struggled with the application of basic trigonometric reduction, the square and quotient identities and factorisation. Together with this, many candidates struggled to work with fractions, in particular combining two terms into one term and factorisation of cubes and grouping proved challenging to many candidates.
- (b) The given arithmetic sequence in Q6.2 confused most candidates as it was an unexpected inclusion of a Paper 1 topic into Paper 2. Some candidates used the definition of a geometric sequence instead of an arithmetic sequence; the rejection of  $45^\circ$  was not indicated in most of the candidates' answers.

### Suggestions for improvement

- (a) As stated in previous reports, teachers should remind learners that they must still use the reduction formulae together with the compound angle formulae when answering questions in Grade 12.
- (b) Teachers should stress the importance of showing the signs and steps when reducing trigonometric ratios.
- (c) Teachers should advocate the use of the  $k$ -method when dealing with quadratic equations involving trigonometric ratios. A simplified quadratic equation may be easier to solve.
- (d) Teachers should explain the difference between the general solution and the specific solutions within an interval. This point was covered in previous reports.
- (e) Expose learners to different types of exercises involving reduction, identities and fractions.

- (f) Teachers need to teach with the entire Mathematics syllabus in mind and not in silos. Learners need to be able to integrate knowledge across topics and between different papers.
- (g) Teachers should spend time revising the general solutions to basic trigonometric equations and then integrate these into the more complex trigonometric equations.
- (h) Learners need to practise many examples independently of all trigonometric content.

### QUESTION 7: TRIGONOMETRY (GRAPHS)

#### Common errors and misconceptions

- (a) Few candidates were unable to answer Q7.1 correctly. They indicated that the period of the graph was  $135^\circ$ , which was the endpoint of the given interval. These candidates did not know the effect the coefficient of the angle had on the basic trigonometric function.
- (b) In Q7.2 some candidates had difficulty with sketching the graph of  $g(x) = \tan 2x - 1$  correctly because the *asymptotes* of this graph were outside the given interval.
- (c) Most candidates did not use the direction of the *translation* of the graph in Q7.3, leaving their answers as  $h(x) = \cos(2x + 45^\circ)$  or  $h(x) = \cos(2x - 45^\circ)$ .
- (d) In Q7.4 some candidates confused the variables of the *domain* and *range*. Others could not represent their answers using the correct notation. They presented their answers as  $y \in [1; -1]$  or  $-1 \geq y \geq 1$ , both of which were incorrect.
- (e) Many candidates failed to recognise the link between the question and the given graphs. Other candidates calculated the *x-intercept* but ignored the change in inequality due to the common factor of  $-1$  when candidates were required to manipulate  $\tan 2x - 1$  to  $-(1 - \tan 2x)$ .

#### Suggestions for improvement

- (a) It is necessary for learners to be reminded constantly of the meaning of concepts like *period*, *domain*, *amplitude* and *range*.
- (b) Learners need to be exposed to the drawing of all trigonometric graphs, including *translations* and *transformations*.
- (c) As mentioned in previous reports, learners should be taught that the period of a trigonometric function is the length of a function's cycle. Since this value is a length, it is a single number and not an interval of values, nor is it an endpoint of the given interval.
- (d) Learners should be shown how to write intervals, using both inequality and interval notations. Teachers are encouraged to use both forms of notations in class. It is good practice to write an interval in one form and then ask learners to write the same answer in the other form.
- (e) As emphasised in previous reports, teachers should teach the 'mother graphs' well so that learners can develop insight into their characteristics. Thereafter, learners must

be exposed to how the change in the different parameters affect the 'mother graphs'.

- (f) Interpretation of graphs should be taught with understanding rather than learners assuming what the question is asking.

## QUESTION 8: TRIGONOMETRY

### Common errors and misconceptions

- (a) In Q8.1 some candidates assumed that  $AB = 18$  cm instead of using the given ratio to calculate the length of  $AB$ . Many candidates could not interpret the given proportion:  $AB : BC = 1 : 2$ .
- (b) Many candidates did not recognise that  $ABCD$  is a rectangle and consequently they did not realise that they needed to use *Pythagoras' Theorem* to answer Q8.2.
- (c) In Q8.3 many candidates assumed the length of  $BK$  to be 18 cm and then used the sine rule to calculate  $KC$ . This was incorrect and candidates lost all the marks in this question.
- (d) Q8.4 required candidates to calculate an angle that was not drawn on the diagram. Candidates opted to use the sine rule instead of the cosine rule. This led to candidates incorrectly assuming that  $\hat{KAC} = \hat{KAB} + \hat{BAC}$ . They did not realise that these angles lie in different planes and therefore their sum does not lie in a triangle.

### Suggestions for improvement

- (a) As emphasised in previous reports, teachers should devote the appropriate amount of time to this section. This should allow learners to score the accessible marks in this section of work.
- (b) Teachers need to develop strategies to be used when solving right-angled triangles and triangles that are not right-angled. Teach learners when to use basic trigonometric ratios and which basic ratio is the appropriate one for a given context.
- (c) As mentioned previously, it might be a good idea to give learners an exercise in which they identify which rule is to be used to solve the question. Learners must also substantiate why they think that the rule that they have selected applies to the question.
- (d) Remind learners that the sine and cosine rules are applicable to a single triangle. Learners may not create a proportion by using the sides and angles or two different triangles using the sine and cosine rules.
- (e) Learners need to be reminded constantly that they may not make assumptions about the lengths of sides and the sizes of angles based on the diagram. Learners must work with the information that they are given in the question.

## QUESTION 9: EUCLIDEAN GEOMETRY

### Common errors and misconceptions

- (a) While Q9.1 was answered well by candidates who had learnt the theory, others drew incorrect constructions, labelled the angles incorrectly or did not draw any construction.

- (b) Some candidates, in answering Q9.2.1, used  $\text{ext } \angle \Delta$  without first showing that  $\hat{P}\hat{L}\hat{O} = \hat{P} = 32^\circ$ .
- (c) Many candidates provided incorrect reasons for their statements in Q9.2.2.

### Suggestions for improvement

- (a) As mentioned in previous reports, teachers are encouraged to use the 'Acceptable Reasons' in the *Examination Guidelines* when teaching. This should start from as early as Grade 8. Learners should be issued with a copy of the 'Acceptable Reasons'.
- (b) Learners should be made to prove theorems as part of their informal tasks. A good strategy is to expect learners to write the proof of a theorem as a task the day after the theorem was explained in class. Teachers should also choose random letters to label the triangles and not stick to the conventional A, B and C.
- (c) Teachers should make use of a diagram with annotations to explain a theorem. Illustrate which information is given and what conclusions can be made from this given information.
- (d) As emphasised in previous reports, teachers must insist that learners read the information given in the question. This information contains key words that direct learners to the theory required to solve the question.
- (e) Teach learners to identify all the theorems and converse theorems that are applicable to a question and how to select from these which ones can be used to answer the question. A clear distinction needs to be made between a theorem and its converse.

## QUESTION 10: EUCLIDEAN GEOMETRY

### Common errors and misconceptions

- (a) In Q10.1 some candidates assumed that PT was the diameter of the circle before proving it. This is using information from Q10.3 in Q10.1. This was not accepted. Other candidates equated angles that were not in the same *segment*.
- (b) When answering Q10.2 some candidates indicated that the opposite angles of a *cyclic quadrilateral* were equal instead of them being supplementary. Other candidates confused *co-interior angles* and *corresponding angles*.
- (c) Q10.3 was poorly answered by many candidates as they could not provide the correct reason of *converse angles in a semi-circle* or *line subtends  $90^\circ$* .

### Suggestions for improvement

- (a) The need for learners to name the angles correctly has been mentioned previously in several reports. Teachers should not credit learners with marks in school-based assessment tasks if the angles are not named correctly.
- (b) It should be emphasised to learners that the theorem *angles in the same segment* can only be used when all four vertices lie on the circumference of the same circle.

- (c) Teachers need to emphasise when to use the converse theorems in proofs. Teachers must take note that *converse co-interior angles*, *converse alternate angles* and *converse corresponding angles* are NOT accepted. Instead, learners should be taught *co-interior angles supplementary*, *alternate angles equal* and *corresponding angles equal*.
- (d) It is advisable to train learners to reason logically and to write corresponding statements and reasons when teaching Euclidean Geometry in Grade 8. This should enable learners to present coherent proofs or solutions in Grade 12.
- (e) Learners should be guided on what parts of the proof are required to link it to the conclusion. A good tactic would be to ask learners to determine their goal for the proof, i.e. if PT is a diameter of the circle then  $\hat{Q}_1 = 90^\circ$ , therefore the learners should then go about reasoning how to calculate  $\hat{Q}_1$  to be  $90^\circ$ ; or to prove  $PQ \parallel SR$  then  $\hat{V}_4 = \hat{Q}_1$ , then learners can calculate the values of  $\hat{Q}_1$  and  $\hat{V}_4$  separately to arrive at the correct conclusion.

### QUESTION 11: EUCLIDEAN GEOMETRY

#### Common errors and misconceptions

- (a) Many candidates failed to determine the link between the given ratios and the ratio required to calculate in Q11.1. Others treated the ratios as actual lengths. This was incorrect.
- (b) In Q11.1.2 some candidates did not know how to express a new ratio using a previously calculated ratio. Other candidates showed poor algebraic simplification skills.
- (c) Most candidates incorrectly assumed a perpendicular height for the triangles, while others used the area rule with incorrect sides in Q11.1.3. Many candidates were unable to recognise that the trapezium's area was a subtraction of a triangles from a bigger triangle.
- (d) In Q11.2.1 many candidates omitted the parallel lines in the reason for the proportionality theorem. This was not accepted and candidates were not awarded the mark for the reason.
- (e) Many candidates attempted to answer Q11.2.3 using the incorrect triangles. Some confused similarity and congruency and indicated pairs of lines equal in their proof for similarity. This was a breakdown.
- (f) Q11.2.4 and Q11.2.5 were not attempted by most candidates, while others tried to manipulate what was required to prove in Q11.2.5 to arrive at an answer.

#### Suggestions for improvement

- (a) As mentioned in previous reports, more time needs to be spent on the teaching of Euclidean Geometry in all grades. Learners should read the given information carefully without making any assumptions. Exercises on Grade 11 and 12 Euclidean Geometry must include different activities and all levels of the taxonomy.

- (b) Teach learners not to assume any facts in a geometry sketch but to only use what was given and that which was already proven in earlier questions.
- (c) Learners need to be made aware that writing correct statements that are irrelevant to the answer in Euclidean Geometry will not earn them any marks in an examination.
- (d) Consider teaching geometry with the approach of using different colours to identify sides and angles; using different variables when working with ratios and using previous sub-questions to answer later sub-questions.
- (e) Learners need to be told that success in answering Euclidean Geometry comes from regular practice, starting off with the easy and progressing to the difficult.
- (f) It is critical that during teaching and learning, learners are exposed to problem-solving questions where critical thinking is required.

# CHAPTER 11

## PHYSICAL SCIENCES

The following report should be read in conjunction with the Physical Sciences question papers of the November 2025 examinations.

### 11.1 PERFORMANCE TRENDS (2021 -2025)

The number of candidates who sat for the Physical Sciences examination in 2025 increased by 4302, compared to that of 2024.

There was a marginal increase in the pass rate this year. Candidates who passed at the 30% level and above increased from 75,6% in 2024 to 77,3% in 2025. There was a corresponding increase in the pass rate at the 40% level and above, over the past two years from 49,9% to 50,1%.

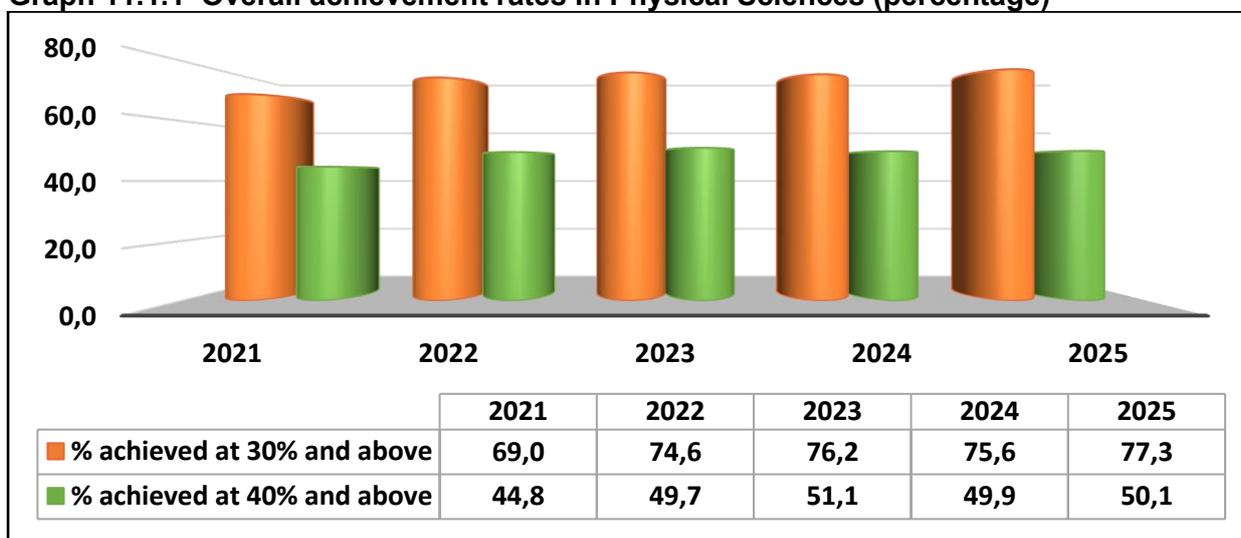
There was a marginal decrease in the percentage of distinctions over 80% (level 7) from 2,8% in 2024 to 1,9% in 2025. This converts into a decrease of in the total number of distinctions, from 5620, in 2024 to 3895 in 2025.

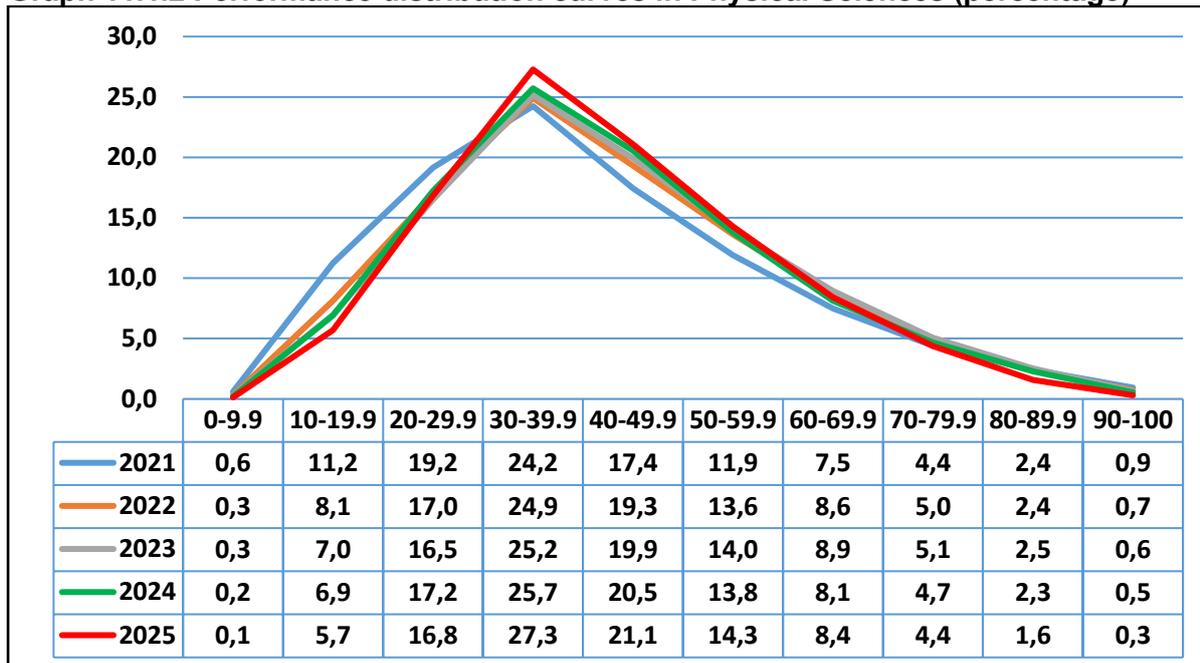
The various commendable support programmes employed by teachers, subject advisors and provincial education departments were continued in 2025. The resourcefulness and diligence of the above-average candidates also contributed to the overall results in the subject.

**Table 11.1.1 Overall achievement rates in Physical Sciences**

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above
2021	196 968	135 915	69,0	88 164	44,8
2022	209 004	155 877	74,6	103 811	49,7
2023	206 399	157 368	76,2	105 414	51,1
2024	200 715	151 839	75,6	100 222	49,9
2025	205 017	158 547	77,3	102,627	50,1

**Graph 11.1.1 Overall achievement rates in Physical Sciences (percentage)**



**Graph 11.1.2 Performance distribution curves in Physical Sciences (percentage)**

## GENERAL COMMENTS ON THE PERFORMANCE IN PAPERS 1 AND 2

Historically, the performance of candidates in summative and formal assessments in the Physical Sciences has been poor. The analysis of candidates' responses to examination questions over the years has identified several weaknesses in the teaching and learning of prescribed content. Often, learning processes fail to meaningfully construct, integrate and apply abstract scientific knowledge to phenomena assessed in a variety of contexts. This was elaborated by Reddy *et al* (HSRC, 2021),

'While South Africa has made progress in improving learning outcomes through a stable curriculum and other systemic interventions, research shows that learners consistently struggle with fundamental skills, and even more so with tasks that demand higher-order cognitive skills and deep conceptual knowledge.'

To improve learning outcomes and learner performance in the Physical Sciences, teachers should be cognisant of the assessment imperatives that lead to successful responses to more challenging examination questions. The following is a list of essentials for lesson planning and classroom delivery. Many of the items on this list were emphasised in the *2024 Diagnostic Report*.

- Teachers must make sure that the correct *Examination Guidelines* (2021) document is being used to inform their teaching and assessment parameters. However, while the guidelines present the content to be delivered in point form (bullets), teachers must extend these points to a range of application possibilities. A singular point can be assessed in multiple ways, using a range of examples to assess the application thereof.
- The demand on a Physical Sciences learner is substantial, mostly because science relies on complicated explanations of abstract concepts. Most candidates perform poorly because they fail to grasp and process these complex phenomena systematically.

- (c) The Physical Sciences are, in many cases, very mathematical in nature. A good grasp of basic mathematical skills such as computation, working with formulae, solving equations (linear, quadratic and simultaneous), understanding mathematical relationships, drawing and interpreting graphs, etc. places candidates in a better position to answer most questions in an examination.
- (d) The precision required to state laws, principles and definitions is vital. All key words and phrases, in their correct contexts, must accompany these definitions and statements, the *Examination Guidelines* provide the necessary accuracy.
- (e) Both Physics and Chemistry are 'exact sciences'. There is a major emphasis on accuracy, particularly with respect to definitions and explanations of physical and chemical phenomena. While a question that requires a simple recall of facts will earn candidates some marks, it must be accompanied by the necessary understanding. This will allow candidates to answer questions pitched at higher cognitive levels.
- (f) Physics and Chemistry are also 'experimental sciences'. The accumulation of knowledge is structured and acquired mostly through a scientific method. Hence science process skills are central to knowledge construction. Candidates must understand experimental procedures through prescribed, recommended and other experiments that seek relationships between quantities.
- (g) The teaching and learning programmes from Grades 10 to 12 are progressive, in nature. Candidates are expected to know the foundational concepts before advancing to the more abstract concepts programmed for subsequent grades. Candidates often demonstrate gaps in their understanding of work covered in prior grades.
- (h) Topics such as *stoichiometry* lend themselves to assessment across questions. They are not assessed as stand-alone questions. This requires candidates to apply *stoichiometry* principles to a variety of contexts where balanced reactions or half-reactions are involved.
- (i) Some assessment items involve the integration of scientific concepts. These are usually questions at a higher cognitive level, designed to assess the ability of candidates to invoke knowledge and skills drawn from various knowledge areas. Candidates perform poorly in this type of question, which points to a linear model of teaching and a failure to link concepts for a deeper understanding of phenomena.
- (j) The use of past question papers is essential to demonstrate how knowledge can be applied to solve problems and answer questions in particular contexts. However, a variation of contexts will demand more creative ways to select and apply appropriate knowledge. This variation reduces the predictability factor of assessment items, and often results in poor responses to innovative questions. For this reason, teachers must ensure intensive teaching with developmental activities. Questions from past papers, and other appropriate questions should serve to demonstrate a range of assessment possibilities. These questions, on their own, may not prepare candidates for novel assessment items. This explains why innovative questions are very poorly answered.
- (k) Candidates should understand the instruction, 'Round off your **final** numerical answers to a minimum of **two** decimal places'. This should only apply to the final answer. Learners should be taught to store the answers of their calculations (unrounded) on their calculators, and only round off when the final answer is written.

The performance in the multiple-choice questions (Q1) was poor in both Papers 1 and 2. This poor performance appears to be a trend in the Physical Sciences. Intervention

strategies to improve performance in this form of questioning has not yielded desired results over the years. The following general comments were made in the 2024 diagnostic analysis to support teachers in preparing learners to answer multiple choice questions. Teachers must take into consideration these comments when developing or analysing multiple-choice questions, which should be included repeatedly in formative and summative assessment tasks.

### General comments on multiple choice questions

- (a) As with all other assessment items, the basic necessity for answering multiple choice questions is an understanding of the concepts being assessed.
- (b) Multiple-choice questions are not always set at the lower cognitive levels, and they are not always easy. They are usually set to attain the prescribed cognitive balance within the ten subquestions.
- (c) Very seldom will multiple-choice questions have straightforward, obvious answers. The distractors are usually carefully formulated to support a known misconception or misunderstanding.
- (d) There is no pattern to the correct combination of letters representing the distractors, and there is no preference for any specific letter. The correct alternative must be chosen on the basis of scientific accuracy alone.
- (e) Multiple concepts or criteria can be assessed within the same multiple-choice question e.g. the correct combination of the substance making up the anode and the reaction taking place at the cathode during electroplating was asked in Q1.10 (Paper 2).

## 11.2 OVERVIEW OF CANDIDATES' PERFORMANCE IN PAPER 1

### General comments

- (a) In Q1 (Multiple-choice Questions – All topics) candidates did not perform well. Candidates needed to apply the specific skills for approaching and answering multiple-choice questions and many candidates were probably only exposed to multiple choice questions as part of formal assessments and not as part of classwork or informal assessments. Teachers should prioritise honing the learners' skills required to respond to these questions. Most questions were on Level 1 and 2 while some questions were pitched at Level 3. Candidates performed poorly in questions where integration of knowledge areas and skills was needed.
- (b) The performance in Q2 was satisfactory. Candidates, however, lost marks unnecessarily because they forgot to write subscripts in formulae.
- (c) Q3 was the best performing question. Careful reading of the information given in a question and analysing the data correctly was essential prior to attempting to answer the question.
- (d) Q4 was the worst performing question. Candidates showed a lack of knowledge in applying mathematical skills, specifically when referring to gradient of graphs and ratios.
- (e) Interpretation of graphs was a challenge for many candidates and the solution using simultaneous equations posed great mathematical difficulty for candidates. In Q6, the

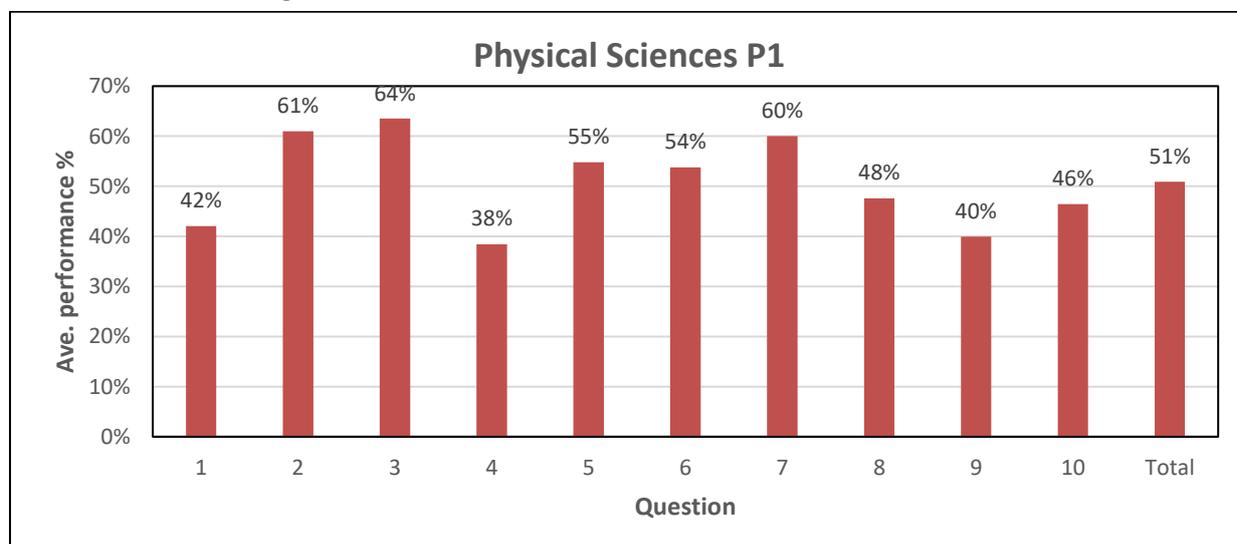
performance of candidates was fair but Q6.3, which expected candidates to make a conclusion from that specific graph, was one of the worst performing subquestions.

- (f) Candidates found Q7 to be challenging. Generally, they struggled more with questions involving the integration of topics.
- (g) In many questions, candidates made the same errors and displayed the same poor conceptual understanding as in previous years. Provinces should mediate effective implementation of the recommendations in this diagnostic report.
- (h) Prior knowledge from Grades 10 and 11 is extremely important in topics like electric circuits and power (Q1.8 and Q8), cost of electricity (Q9.3) and friction (Q2).
- (i) Many candidates lost marks unnecessarily for:
- not writing the correct formulae using the data sheet provided and including the necessary subscripts with the symbols in the formulae;
  - not showing all their substitutions;
  - not rounding off correctly to a minimum of two decimals in the final answer only. Some candidates did not give the correct units for the answers.
- (j) Since conceptual understanding is one of the greatest challenges the following is suggested:
- *Conceptual Change Approach*: Implement a teaching strategy that focuses on addressing misconceptions.
  - Begin with a pre-test to assess learners' understanding, followed by targeted lessons that clarify concepts and a post-test to evaluate improvement. This method has been shown to enhance learner engagement and understanding.

### 11.3 DIAGNOSTIC QUESTION ANALYSIS OF PAPER 1

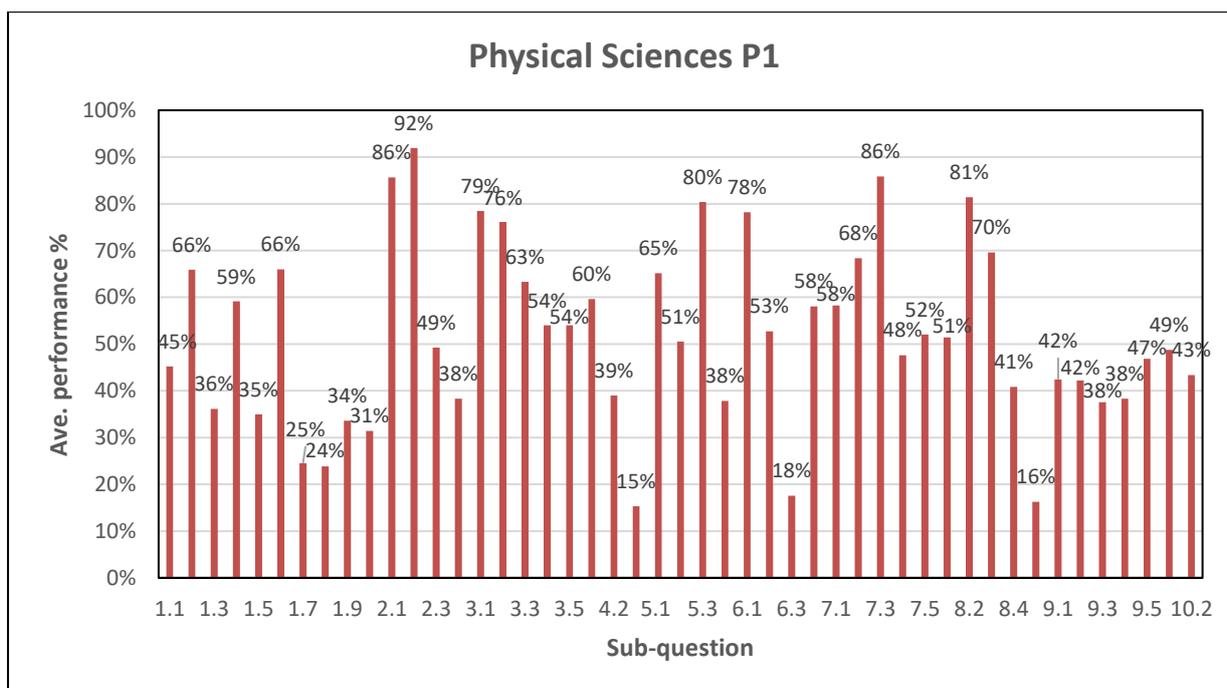
The following graph is based on data from random samples of candidates across the provinces. The performance in Question 1 (Multiple-choice questions) was poor. It must be noted that the multiple-choice questions can assess different cognitive and difficulty levels and integration of topics is also possible. The averages also reflect the poor performance in Question 4, 8, 9 and 10. Candidates showed the worst performance in these questions in 2025 and the best performance in Questions 2, 3 and 7.

**Graph 11.3.1 Average performance per question in Paper 1**



Q	Topics	Q	Topics
1	Multiple-choice questions	6	Doppler Effect
2	Newton's laws of motion	7	Electrostatics (Coulomb's law & electric fields)
3	Vertical projectile motion	8	Electric circuits
4	Momentum and impulse	9	Electrodynamics: Motors, generators, AC and DC
5	Work, energy and power	10	Photoelectric effect and Electrostatics

Graph 11.3.2 Average performance per subquestion in Paper 1



Sub-Q	Topic	Sub-Q	Topic
1.1	Newton's Second Law	6.1	State Doppler Effect
1.2	Vertical Projectile Motion	6.2.1	Identify independent variable
1.3	Work and Energy	6.2.2	Identify controlled variable
1.4	Momentum	6.3	Draw conclusion from graph
1.5	Newton's Second Law and Work	6.4	Calculate speed of sound in air
1.6	Doppler Effect	7.1	Describe electric field
1.7	Electrostatics	7.2	Draw electric field
1.8	Circuit Electricity and power	7.3	Calculate distance r
1.9	Electrodynamics	7.4	Calculate if surface is frictionless
1.10	Photoelectric effect	7.5	Compare force after contact
2.1	Statement Newton's 2nd Law	8.1	Define emf
2.2	Free-body diagram	8.2	Calculate reading on voltmeter
2.3.1	Application Newton 1	8.3.1	Calculate current in L1
2.3.2	Application Newton 1	8.3.2	Calculate reading on ammeter A1
2.4	Explaining effect of angle on friction	8.4	Calculate emf
3.1	Define free fall	8.5	Compare new reading on ammeter A1
3.2	Calculate time to maximum height	9.1	Define potential difference
3.3	Calculate final velocity	9.2	Identify polarity of magnet
3.4	Explaining inelastic collision	9.3	Calculate cost of electricity
3.5	Sketching velocity-time graph	9.4	Draw sketch graph of voltage
4.1	Define impulse	9.5	State change to DC generator
4.2.1	Calculate net force	10.1.1	Define work function

Sub-Q	Topic	Sub-Q	Topic
4.2.2	Calculate initial velocity	10.1.2	Write threshold frequency
4.3	Draw momentum sketch graph	10.1.3	Compare work functions of metals
5.1	State work-energy theorem	10.1.4	Compare effect with higher intensity
5.2	Calculate kinetic energy	10.2.1	Calculate frequency of photon
5.3	Free-body diagram	10.2.2	Compare energies of transitions
5.4	Calculate if crate will pass point C		

## 11.4 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 1

### QUESTION 1: MULTIPLE-CHOICE QUESTIONS

#### Common errors and misconceptions

- Candidates struggled more with questions where more than one topic, or integration of topics, were assessed, such as in Q1.3 and Q1.5. For Q1.3 candidates needed to apply two formulae:  $P_{ave} = Fv_{ave}$  and  $E_{mech} = mgh + \frac{1}{2}mv^2$  taking constant velocity AND an increase in height into account. For Q1.5 candidates needed to apply two formulae:  $F_{net} = ma$  and  $W_{net} = F_{net}\Delta x \cos\theta$ , knowing that constant net force implies constant acceleration while the distance still increased.
- Q1.7 was challenging for most candidates because of the mathematical skills required. This is not a new question and has been frequently assessed in past papers. A number of candidates, however, were unable to apply mathematics and ratios to answer this type of question.
- The poorest performance in the multiple-choice questions was recorded for Q1.8. It required candidates to understand the arrangement of resistors in a circuit and compare the brightness of bulbs when a change is made to the circuit by means of a switch. The lack of understanding of the content was also evident in Q8.
- In Q1.9 candidates needed to know each component of a motor (or generator) and its function. This was a pure recall question but one which posed a great challenge to many candidates.
- In Q1.10 candidates struggled to interpret the x-axis of the graph and link it to the relationship in the formula provided on the data sheet. This skill is important.

#### Suggestions for improvement

- Learners must be encouraged to use the formulae from the data sheet to explain the relationships between the variables.
- Multiple-choice questions on their own as an assessment should be practised throughout the year in informal assessments. In order for learners to master responding to multiple-choice questions, they should be provided with the requisite skills.
- Learners need to analyse a multiple-choice question and identify which laws or principles are relevant, before responding to it. They also need to select the applicable formulae which could be used as part of their argument. Include all different variables like independent, dependant and controlled variables as part of the reasoning.

- (d) Multiple-choice questions from past papers could be used as a very effective teaching tool.

## QUESTION 2: NEWTON'S LAWS OF MOTION

### Common errors and misconceptions

- (a) Candidates lost marks for using the word 'indirectly' instead of 'inversely'. This is an important key word to consider. If a candidate changed the order of the words in the second part of the law and started with 'net force' instead of 'acceleration' it changed the relationships mentioned in the law and the candidate lost marks for not explaining the correct relationships between *net force*, *acceleration* and *mass*. It is also important to acknowledge that the first part of the law did not carry marks in the past, however, in order to achieve full marks, in future, reference will have to be made to it.
- (b) The free-body diagram was very well answered and candidates performed best in this Q2 subquestion.
- (c) Candidates often lost marks for the formula if they omitted subscripts and, in this case, also superscripts. The complete formula from the data sheet had to be copied correctly:  
 $f_s^{\max} = \mu_s N$ .
- (d) Candidates used the magnitude of the weight for the normal force which indicated a misunderstanding of the effect of the angle of the applied force.
- (e) Q2.4 had different correct answers. Depending on how much the angle decreased the answer could be either one of the options. Candidates were unable to explain this because no values were given and the argument had to mention which forces played the most important role. The vertical component decreased and the horizontal component increased. This could have led to either the static friction increasing or the horizontal force increasing to such an extent that the object started to move and kinetic friction decreased.

### Suggestions for improvement

- (a) Learners must be exposed to the definitions in the *Examination Guidelines* and the *CAPS*. Key words must be emphasised in these definitions and the complete law needs to be written to receive full marks.
- (b) Teachers need to draw attention to the reason for learners losing marks for a free body diagram: arrows not touching the dot; drawing an object and not a dot; no labels; unacceptable labels and lines instead of arrows.
- (c) The free-body diagram is not only assessing the skill of drawing a diagram, but it leads the learner to expanding the formula to include all necessary forces. This link between the diagram and the formula and even the argument is important for learners to know.
- (d) Teachers should expose their learners to all scenarios for this section as described in the *Examination Guidelines*. The difference between static friction and kinetic friction should be taught in terms of calculations, graphs and explanations. Conceptual reasoning should be reinforced by focussing on forces rather than assumptions about motion. The mathematical relationships between the angle and the different forces on each other are important to use as part of the explanations and learners should be taught as many explanations as calculations.

- (e) Use well known calculation-type questions and change them to explanation type questions by using only variables instead of values as asked in Q2.4. Use the formula and expand it to make a logical scientific argument:  

$$f_s^{\max} = \mu_s N \text{ and then } F \cos \theta = \mu_s (mg - F \sin \theta).$$
- (f) Learners should understand the graph relating different frictional forces and applied force, as taught in Grade 11.
- (g) Teachers could use simple experiments with spring scales to demonstrate how the angle of the applied force influences the frictional forces.

### QUESTION 3: VERTICAL PROJECTILE MOTION

#### Common errors and misconceptions

- (a) A number of candidates could not differentiate between *free fall* and *projectile*. Candidates also lost marks for not writing gravitational force *only*.
- (b) Some candidates changed the direction of the motion and took it from the ground up, which was incorrect.
- (c) Common reasons for candidates losing marks were: copying the formula from the data sheet incorrectly; rounding off the final answers incorrectly or writing the answers without units.
- (d) Q3.4 was a challenge because candidates had to explain why the collision was inelastic. In the past candidates, were used to proving this with a calculation but the *Examination Guidelines* does not restrict this to calculations only. Candidates gave a reason and not an explanation, referring to *kinetic energy* only and ignored the *height*. Another common error was that they were not specific enough and only mentioned 'energy' or 'energy lost' and not *kinetic energy*.
- (e) In Q3.5 candidates were able to receive some marks for the graph but lost marks because they did not read the full question carefully enough. The graph had to be drawn to the maximum height 'after it bounced' and most candidates only drew up to the point where it hit the ground.
- (f) Candidates showed letters p and q on the graph instead of the numerical values as indicated in the instructions of the question. If the values calculated are different e.g.  $15 \text{ m}\cdot\text{s}^{-1}$  and  $17,95 \text{ m}\cdot\text{s}^{-1}$  then that should be visible on the graph. Some candidates did not show a change in the values on the graph and started with values greater or equal to, when it should have been less.

#### Suggestions for improvement

- (a) Learners should make sure that they understand the difference between *free fall* (the *motion*) and *projectile* (the *object*). In both cases the only force acting is the gravitational force. Learners should not start the definition with the word 'when'. The word 'when' refers to a time and not a certain motion or object.
- (b) A learner cannot change the scenario of the question and create their own question. If the ball starts from the top of a building, going upwards and then hitting the ground the learner cannot change the motion starting from the ground and going back up towards the building.

- (c) Conceptual understanding needs to be emphasised instead of focusing primarily on procedural calculations. Breaking up the motion into stages can also help the learner to understand how to analyse the motion.
- (d) Learners should pay attention to the mark allocation in a question. If an explanation is asked, it will be worth more marks than a question only requiring a reason to be provided. The explanation should refer to what changed during the scenario and what was the effect of that change. In Q3.4 the *height* changed and therefore the *kinetic energy* also changed.
- (e) Teachers should stress the importance of signs when solving problems with vector quantities.
- (f) Learners should be able to relate the equations in Physical Sciences to the general equations used in Mathematics. They will be able to understand the graphical analysis much better – rather than memorising graphs for the various scenarios.
- (g) It is important for learners to read with understanding and to make sure they read the entire instruction e.g. up to which point of the motion should the graph be drawn and which values should be indicated.

#### QUESTION 4: MOMENTUM AND IMPULSE

##### Common errors and misconceptions

- (a) Most candidates did not understand the results of the experiment as it was represented in the graph. They struggled to interpret the gradient of the graph and relate that to the described scenario of the investigation. Many candidates used initial momentum as zero when the ball did in fact have an initial momentum and this showed a misinterpretation of the data.
- (b) A number of candidates did not realise that the x-axis did not represent absolute time, but the contact time, or the time for which the ball was in contact with the bat.
- (c) The majority of the candidates could not manipulate  $F_{\text{net}}\Delta t = p_f - p_i$  into the following:  $p_f = F_{\text{net}}\Delta t + p_i$  (mathematically  $y = mx + c$ ) where it showed that the y-intercept represented the initial momentum ( $p_i$ ).
- (d) Many candidates forgot to convert the mass into kilograms.
- (e) Reading the instructions of a question posed a challenge to a number of candidates. They had to redraw the graph, add their own graph and label both lines. Many candidates did not draw two lines and/or did not label the lines.

##### Suggestions for improvement

- (a) Teachers need to strengthen conceptual understanding of *impulse* and *momentum*. If teachers use physical demonstrations to illustrate that the contact time can be changed by ‘following-through’ in sports, the understanding of these concepts could be reinforced. It is not only applicable to cricket, as in the question paper, but in almost all other sports where there is contact between an object and something exerting a force.
- (b) Teachers should reinforce the depiction of the direction of vectors by using arrows, sign conventions and vector diagrams.
- (c) Learners should be exposed to graph interpretation skills including:

- reading values from graphs accurately;
  - determining gradients and intercepts;
  - interpreting physical meaning of straight-line graphs;
  - using practice exercises with different types of graphs.
- (d) Learners should be allowed to change *mass*, *force*, and *time* to see direct effects on *momentum*. Such hands-on work deepens understanding far better than abstract theory.
- (e) Mathematical skills such as graphical analysis to interpret data as outlined in Section 2 of the CAPS document should be incorporated into daily teaching.

### QUESTION 5: WORK, ENERGY AND POWER

#### Common errors and misconceptions

- (a) Q5.2 seemed to be a straightforward question but many candidates lost marks because they did not write the final answer as  $E_{k_{\text{final}}}$  and left their answer as the change in kinetic energy.
- (b) Q5.4 was poorly answered as candidates were unable to grasp the requirements of the question. This question required them to do a *calculation*, a *comparison* and provide a *conclusion*.

#### Suggestions for improvement

- (a) Learners must refer to the mark allocation to determine the number of forces on the free-body diagram.
- (b) For the free-body diagrams, teachers should provide side-by-side examples of frictionless versus rough inclines to reinforce understanding. Learners should draw different free-body diagrams for the different stages of the motion of the object.
- (c) Teachers must provide ample exercises for learners to expand the formula from the work-energy theorem to include all forces indicated on the free-body diagram. The link between the diagram and the formula should be clear to learners.
- (d) Teachers should focus on examples of the type of questions like Q5.4. A learner needs to understand that the answer consists of three parts: a *calculation*, a *comparison* between two values and a final *conclusion* that answers the question. Existing questions from past papers can be changed into these types of questions.

### QUESTION 6: DOPPLER EFFECT

#### Common errors and misconceptions

- (a) When identifying variables many candidates were not specific in their responses. In the Doppler effect there are at least two different frequencies (*source* and *detected*) and three different speeds (*source*, *detector* and *sound*).
- (b) Q6.3 was one of the worst answered subquestions in the paper. Candidates did not link the variables asked in Q6.2 to the conclusion in Q6.3 which is supposed to be done by default. Most candidates wrote a general statement concerning the Doppler

effect and did not write a conclusion for *this experiment* specifically linking it to the graph.

- (c) Failure to interpret the results from a graph was a challenge for many of the candidates.
- (d) Although simultaneous equations are a well-known method of asking the Doppler effect, most candidates still could not understand that if there were two different motions, towards and away from the detector, then there were, by default, also two different equations that needed to be solved simultaneously. The majority of the candidates still substituted two frequencies into only one equation, which resulted in them only receiving the mark for the formula.

### Suggestions for improvement

- (a) Learners should be taught which words in the definitions are keywords that should never be omitted, as their omission will result in a loss of accuracy and marks.
- (b) Teachers should emphasise that a conclusion is always drawn from data and results gathered during an experiment. This data and results can be represented in a graph or table. It is never a general statement that will always be true. As the candidates were asked to identify the independent variable for this experiment, they should have known that this variable is represented on the x-axis of the graph. Then when a conclusion is required, that same independent variable should be part of the conclusion.
- (c) Learners should be instructed to use the labels from the axes of the graph to write a hypothesis, a conclusion or even an investigative question. These skills should not only be assessed only once or twice a year, during a formal practical.
- (d) It is advised that learners be exposed to many different kinds of experiments in earlier grades so that they are able to write investigative questions, hypothesis and conclusions with confidence.
- (e) Teachers should remind learners to round off correctly to two decimal places on the final answer only. Learners should try, as far as possible, not to round off in intermediate steps of the calculations.

### QUESTION 7: ELECTROSTATICS (COULOMB'S LAW and ELECTRIC FIELDS)

#### Common errors and misconceptions

- (a) The difference between the definitions of *electric field* and *electric field at a point* is still a challenge to candidates.
- (b) Many candidates were unable to provide a very simple answer to the field pattern. They drew curved lines when there was only one charge; also, the field lines were supposed to be straight. This showed a lack of understanding that the field lines only curved because of the influence of a second charge, which in this case was not present.
- (c) The calculation in Q7.3 was easy but candidates lost marks because they substituted the answer that they had to prove, into the original equation.

- (d) Q7.4 was a second example of a specific type of question where the candidates had to do a *calculation*, then a *comparison* and finally, provide a *conclusion*. Candidates were able to do the first calculation but found it challenging to continue to answer the final part of the question. The question included integration between electrostatics and mechanics and candidates generally found integration of topics to be challenging.
- (e) Many candidates did not realise that the distance  $r$  proven to be 0,05 m in Q7.3 was still the same distance  $r$  that should be used in Q7.4.
- (f) A number of candidates did not follow the instructions from the paper very carefully. The question asked if the surface was frictionless and the answer was, 'No'. Many candidates, however, wrote, 'Yes, there is friction'. Essentially giving a correct answer but totally opposite from the marking guideline.
- (g) Most candidates struggled to interpret the vector nature of the forces taking the direction of the forces into account. The difference between a single force and a net force being the combination of different forces posed a challenge to a lot of candidates.

### Suggestions for improvement

- (a) Teachers should encourage learners to practise the drawing of field lines and show learners examples of where they would lose marks e.g. lines crossing each other; lines not touching the sphere/charge; lines entering the sphere/charge; lines curving when it should be straight; lines straight when it should be curving.
- (b) Learners should read the questions carefully and check their answers against the questions' requirements to ensure that they have answered all parts of the question. This is especially important for the type of question where a learner must do a *calculation*, *comparison* and a *conclusion*.
- (c) Teachers must emphasise that one can never use an answer given in the paper, which has to be proven, to validate that same answer. The given answer cannot be substituted into the equation/formulae.
- (d) Teachers can use vector diagrams very effectively to assist learners with these types of integration questions.
- (e) Q7.5 referred to Grade 10 *electrostatics*. It is important to note that this work should be revised by learners.

## QUESTION 8: ELECTRIC CIRCUITS

### Common errors and misconceptions

- (a) In a number of cases, the key words in the definition, were omitted.
- (b) Many candidates could not analyse the circuit diagram correctly. When they had to perform calculations about a part of the circuit, they performed well, but when all the switches were closed, they were unable to identify which resistors were in parallel and how the current flowed.
- (c) A number of candidates did not substitute the correct values from previous subquestions into the correct emf-formula. Most of the candidates found that understanding and then solving two equations simultaneously was mathematically challenging.

- (d) In Q8.5 candidates who performed very poorly could not provide an explanation as to what happened to the ammeter reading when both switches were closed. This depended on the candidate's *understanding* of the arrangement of resistors, *considering* internal resistance and *comparing* the new circuit to the previous circuit, when only one switch was closed. A higher order question of this nature has been asked frequently in the past, but candidates were still ill-prepared for this type of question.

### Suggestions for improvement

- (a) The correct definition for *emf* should be taught in Grade 10.
- (b) Teachers should focus on analysing different circuit diagrams, starting from the lower grades. Learners should be given many different circuit diagrams to analyse which resistors are in parallel and which resistors carry the main or total current. Colour coding a circuit diagram could assist them. If a learner does not understand the arrangement of the resistors, all the calculations following will be wrong.
- (c) It would be good practice to give learners a range of examples with multi-step calculations on circuits.
- (d) The explanation type questions like Q8.5 also depends on the understanding of the arrangement of resistors in a circuit. It is vital for learners to develop a skill of redrawing the circuit diagram to clarify their understanding and analyse the circuit correctly.
- (e) It is important to teach learners to refer to the constant variables (*emf* and *internal resistance*) when they build their arguments.
- (f) Teachers should provide many practice problems, with different switches opened and closed. Learners should be able to:
- analyse and colour code the diagram to understand the arrangement of resistors;
  - solve the problems with a step-by-step method including simplifying the circuit;
  - justify each step in words to reinforce both conceptual understanding and procedural skills.
- (g) *PhET* simulations should be used to demonstrate the effect of opening and closing switches on ammeter and voltmeter readings in a circuit.

### QUESTION 9: ELECTRODYNAMICS

#### Common errors and misconceptions

- (a) The definition of *root mean square potential difference* is still a major problem. There appears to be a lack of understanding of the definition that candidates learn. The omission of key words is a serious problem.
- (b) Candidates have not mastered the concept of *polarity*, leading them to confusing *electrostatic polarity* (positive or negative) with *magnetic polarity* (north or south).
- (c) Candidates lost marks for omitting subscripts in the formulae. They did not realise that *rms* and *average power values* needed to be used to calculate cost of electricity.

- (d) In Q9.4 candidates did not label the graphs. They had to redraw the given graph and then show the change in the graph. Unlabelled graphs resulted in no marks being awarded. Many candidates indicated only one change on the graph. For example, they only changed the *frequency* and not the *amplitude*; or they only changed the *amplitude* and did not indicate *one cycle*.
- (e) Q9.5 required candidates to explain a change made to the generator. This was not a one-word answer. Candidates had to state fully which component should be replaced and what the replacement should be.

### Suggestions for improvement

- (a) Learners should revise *Faraday's law* from Grade 11, as well as the application of the different rules to determine the directions of current and polarity of magnets.
- (b) Teachers should make sure learners are able to answer questions on all the content, prescribed in the *Examination Guidelines*.
- (c) Graphs should always be part of teaching and assessment on this topic. Teach learners to read the instructions in the question paper properly and label the graphs as instructed.

## QUESTION 10: PHOTOELECTRIC EFFECT

### Common errors and misconceptions

- (a) Many candidates could not distinguish between the definitions of *threshold frequency* and *work function*.
- (b) A number of candidates struggled with the explanation required in Q10.1.3. It was a challenge for candidates to apply the equation  $E = W_0 + E_{k(\max)}$  in their explanation. They neglected to mention the controlled variable, using the *same frequency of light*. They also confused work function of the metal and kinetic energy of the electrons. Candidates only mentioned one metal despite the requirement to compare caesium and sodium.
- (c) In Q10.1.4 most candidates were not specific enough in their answers and only gave generic statements. They did not apply their knowledge to this specific metal and frequency of light.
- (d) Q10.2 was poorly answered overall. It is still evident that candidates have a serious lack of understanding of the different spectra and that the content is not taught in depth. Many candidates answered this question in terms of the *photoelectric effect* and referred to *threshold frequency* or *kinetic energy* when they actually had to explain the transitions of an electron within a single atom.

### Suggestions for improvement

- (a) Learners should realise that using the correct units is important: Hz is correct but hz is incorrect and not accepted.
- (b) Teachers should emphasise that learners should give a reason for a change within the context of the photoelectric effect. The skill to provide a reason in a proper sentence and in words that form a logical argument needs to be practised often. This includes making a conclusion from the information provided.

- (c) Teachers should thoroughly explain that *intensity* only influences *the number of electrons* ejected if electrons were ejected. Otherwise intensity has no effect.
- (d) Teachers should help learners differentiate between energy of *photon (incident light)*, work function of a *metal* and kinetic energy of *electrons*.
- (e) Teachers should make an effort to spend enough time on teaching the different kinds of spectra and distinguishing them from the photoelectric effect. Atomic spectra and the photoelectric effect may be taught as unrelated entities.
- (f) Learners will have a better understanding of this topic if they were shown short video clips or animations of the photoelectric effect.
- (g) This topic allows for many relationships between quantities to be discussed, for example:
- $W_0$  is directly proportional to  $f_0$ , since  $h$  is constant.
  - $E$  is directly proportional to  $f$ , since  $h$  is constant.
  - $E$  is inversely proportional to  $\lambda$ , since  $h$  and  $c$  are constant.
  - $f$  is inversely proportional to  $\lambda$ , since  $c$  is constant.
  - If  $E$  increases,  $E_{k(\max)}$  will increase since  $W_0$  is constant.
- (h) When questions involve comparisons, learners must be taught that the statement of the comparison must mention both 'items' that are being compared. For example, "Sodium has a smaller  $E_{k(\max)}$  than caesium" rather than "Sodium has a smaller  $E_{k(\max)}$ ".

## 11.5 OVERVIEW OF CANDIDATES' PERFORMANCE IN PAPER 2

### General Comments

- (a) Although there was a slight decline in the performance of learners in Paper 2, a disturbing trend is the recurrence of common errors pointed out in previous diagnostic analyses.
- (b) Of particular concern was the performance in the multiple-choice questions (Q1). Candidates did not apply the requisite knowledge to choose the correct option from the distractors provided. The nature and format of the multiple-choice questions did not change significantly from previous years. This points to no or ineffective intervention strategies in the treatment of multiple-choice questions. Refer to the general comments about multiple choice questions above.
- (c) Candidates performed relatively well in Q2. However, many candidates could not name the organic compounds correctly in Q2.
- (d) The best performance was in Q3. This indicated that candidates were familiar with physical properties such as *vapour pressure* and *boiling points*, and how these properties related to intermolecular forces.
- (e) Once again, many candidates found organic reactions (Q4) to be challenging. The presentation of the question was different in that the incomplete reactions were not provided in a flow diagram.
- (f) The performance in Q5 was satisfactory. Most candidates were able to define the term *reaction rate* and associate the rate of the reaction with the gradient of the graph.

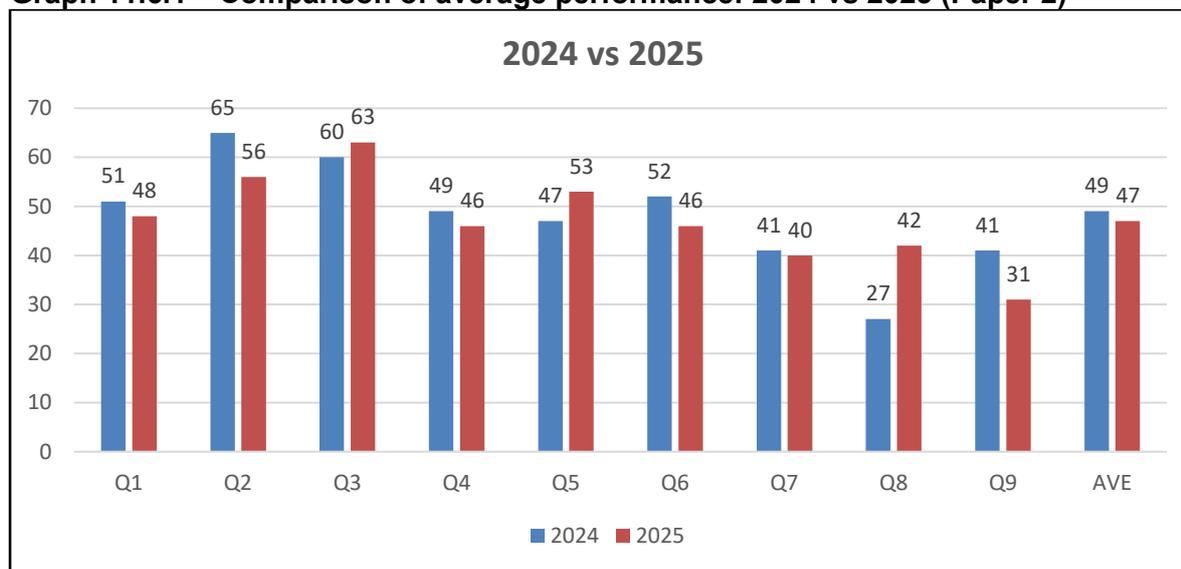
However, the calculation (Q5.2.2, worth 5 marks) was poorly answered. The performance was boosted by the part marks awarded for this calculation.

- (g) Q6 was poorly answered, mainly because many candidates included the solid substance in the equilibrium constant expression. Despite this, the generous allocation of marks for subsequent steps resulted in part marks being awarded for many of the candidates' responses.
- (h) The higher-level calculation required in Q7.2.2, was once again beyond the reach of most candidates. As is usually the case, candidates performed poorly in Q7.
- (i) The performance in Q8 and Q9 was poor once again. As was the case in 2024, and preceding years, candidates demonstrated a poor understanding of *redox reactions* and *electrochemistry*. Q6.2.3 was a difficult Level 4 question. However, many candidates obtained part marks because of the generous allocation of marks.

## 11.6 DIAGNOSTIC QUESTION ANALYSIS OF PAPER 2

From the Rasch samples used across the provinces, there was a slight decline in the performance in most of the questions when compared to similar Rasch samples of 2024. It must be pointed out, however, that these samples are stratified i.e. they were chosen from across the performance ranges, and are only random within each range. The trend was similar in almost all the provinces. The performance comparison of the overall performance, per question, is illustrated below:

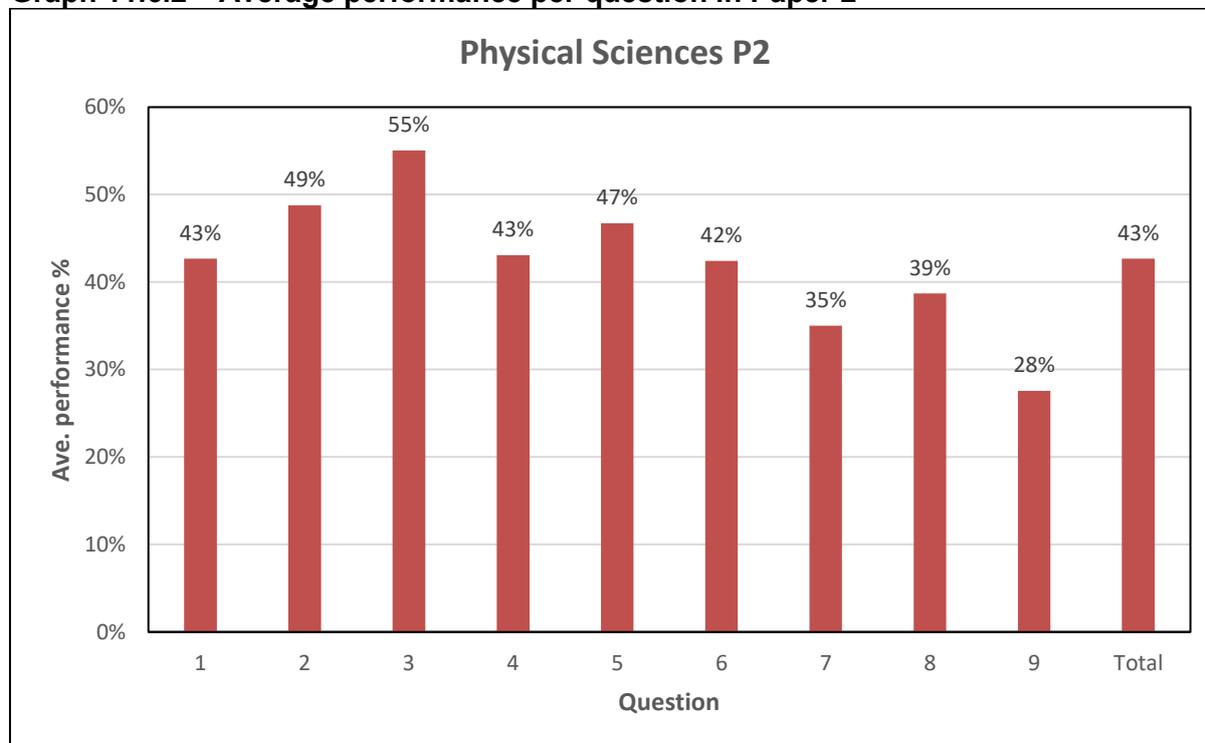
**Graph 11.6.1 Comparison of average performance: 2024 vs 2025 (Paper 2)**



Performance declined in Questions 1, 2, 4, 6 and 9, while there was an improvement in performance in Questions 3, 5 and 8. The performance in Q7 was more or less the same. However, it should be noted that candidates also demonstrated limited understanding of fundamental chemistry concepts in many of the questions that recorded an improvement in performance. These will be discussed in the analysis of individual questions.

Graph 11.6.2 shown below is based on combined data from all the provincial samples, and reflects the average performance per question for 2025. This graph is useful in assessing the relative degrees of challenge of each question as experienced by candidates throughout the country.

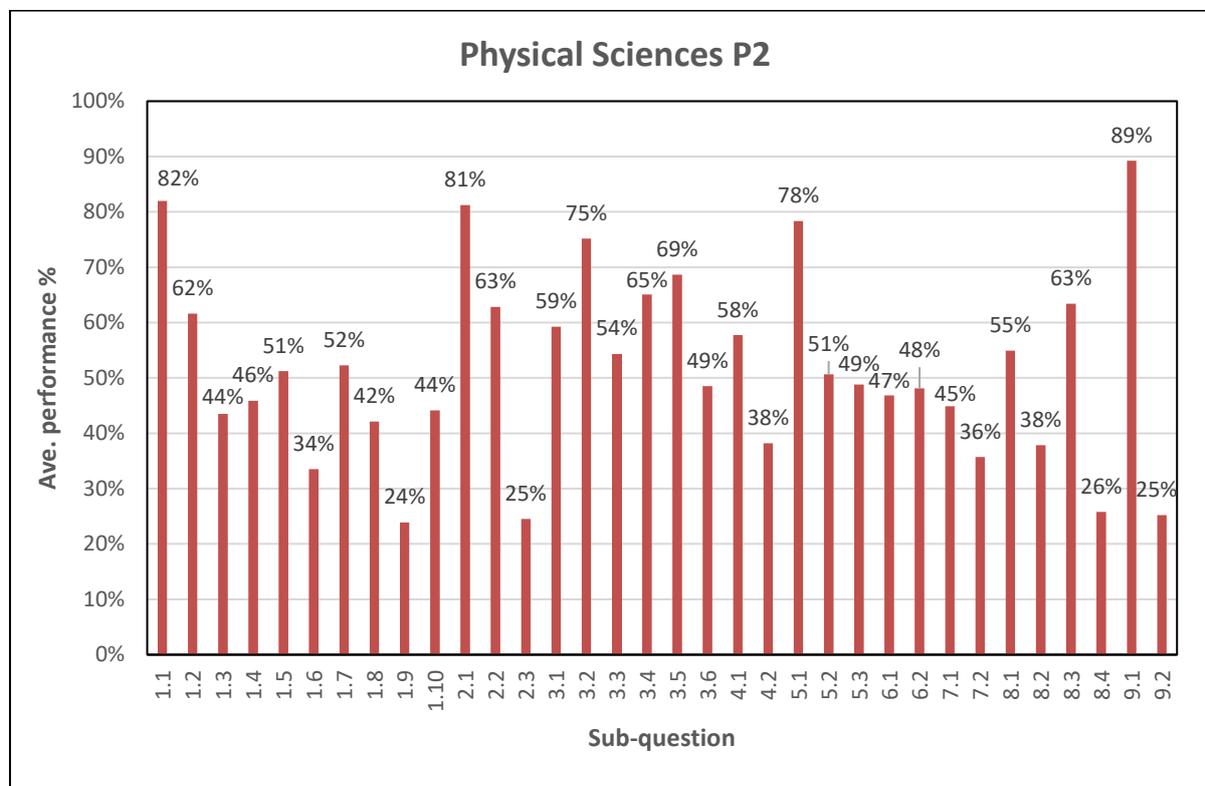
**Graph 11.6.2 Average performance per question in Paper 2**



Question	Topic	PERCENTAGE
1	Multiple Choice	43
2	Organic Structures, functional groups and isomerism	49
3	Physical Properties (Vapour pressure and Boiling Points)	55
4	Organic Reactions	43
5	Rates of Reaction	47
6	Chemical Equilibrium	42
7	Acids and Bases	35
8	Redox Reactions & Galvanic Cells	39
9	Redox Reactions & Electrolytic Cells	28
<b>Total</b>		<b>43</b>

Graph 11.6.3, showing the average performance per subquestion, is shown below. It is accompanied by a description of the knowledge or skill requirements for each subquestion, and clearly indicates learning gaps for each of these descriptions.

**Graph 11.6.3 Average performance per sub-question in Paper 2**



Sub-Question	Topic	Sub-Question	Topic
1.1	Functional Group	5.1.	Define reaction rate
1.2	Organic reaction	5.2.1	At which time 10s and 30s is the reaction rate higher
1.3	Nomenclature	5.2.2	Calculate the average rate at which CO <sub>2</sub> is formed in the first 10s
1.4	Rate of the reaction	5.2.3	Which reactants is in excess: CO or O <sub>2</sub> ?
1.5	Chemical Equilibrium	5.2.4	How will the smaller sealed container affect the magnitude of the gradient of the graph? Explain
1.6	Energy and change	5.3.1	Was there a net release or net absorption of energy during the reverse reaction?
1.7	Acids and Bases	5.3.2	Define the term activated complex
1.8	Acids and Bases	5.3.3	A catalyst is added to the reaction. Explain in terms of collision theory why reaction rate increase
1.9	Galvanic cell	5.3.4	When more SO <sub>2</sub> is added, how will it affect the heat of reaction?
1.10	Electrolysis	5.3.5	Redraw the graph, on the same axes draw the curve that will be obtained when more SO <sub>2</sub> is added

<b>2.1.1</b>	Write down letter that represents an alcohol	<b>6.1.1</b>	State Le Chatelier's principle
<b>2.1.2</b>	Write down letters that represent compounds that are functional isomers	<b>6.1.2</b>	What effect does the addition of conc. HCl have on the mass of the $\text{Ca}(\text{OH})_2$ ?
<b>2.1.3</b>	Write down letters that represent compounds that belong to the same homologous series	<b>6.1.3</b>	Explain the answer to Q6.1.2 using Le Chatelier's principle
<b>2.2.1</b>	Write down the IUPAC name of compound A	<b>6.2.1</b>	Is the decomposition of $\text{NH}_4\text{HS}$ EXOTHERMIC or ENDOTHERMIC?
<b>2.2.2</b>	Write down the IUPAC name of compound B	<b>6.2.2</b>	Explain the answer to Q6.2.1 using Le Chatelier's principle
<b>2.2.3</b>	Write down the IUPAC name of compound G	<b>6.2.3</b>	Calculate the mass of $\text{NH}_4\text{HS}$ that will be present at equilibrium
<b>2.2.4</b>	Write down the structural formula of two straight-chain positional isomers of D	<b>7.1.1</b>	Which one is the stronger acid: $\text{H}_2\text{PO}_4^-$ or $\text{HPO}_4^{2-}$ ?
<b>2.3.1</b>	Write down the name of the type of reaction	<b>7.1.2</b>	Write down the FORMULA for the conjugate base of $\text{H}_2\text{PO}_4^{2-}$
<b>2.3.2</b>	Calculate the total volume of the gases present in the containers	<b>7.1.3</b>	Identify a substance behaving as an ampholytes in the reactions above
<b>3.1</b>	Define the term homologous series	<b>7.1.4</b>	Will the solution be acidic or basic when $\text{Na}_2\text{HPO}_4$ dissolves in water?
<b>3.2</b>	Identify the TWO homologous series to which the compounds	<b>7.1.5</b>	Write a balanced equation to explain the answer to Q7.1.4
<b>3.3.1</b>	Write down the structural formula of compound A	<b>7.2.1</b>	Calculate the final concentration of the hydroxide ions in the flask
<b>3.3.2</b>	Write down the IUPAC name for a possible compound B	<b>7.2.2</b>	Calculate the number of moles of $\text{Ba}(\text{OH})_2$ used to prepare the $100\text{cm}^3$ solution
<b>3.4.1</b>	Write down the strongest type of IMF in Compound A	<b>8.1</b>	Define the term electrolyte
<b>3.4.2</b>	Write down the strongest type of IMF in Compound B	<b>8.2</b>	Which ion concentration will increase $\text{Al}^{3+}$ or $\text{Zn}^{2+}$ will increase? Give a reason for the answer
<b>3.5</b>	Which compound, A or B, has a higher boiling point? Give reasons	<b>8.3</b>	Write down the cell notation for this cell
<b>3.6</b>	How will the BP of A be affected when measured under lower atmospheric pressure?	<b>8.4</b>	Calculate the mass of $\text{Al}_2(\text{SO}_4)_3$ needed to prepare the $250\text{cm}^3$ solution under standard conditions
<b>4.1.1.</b>	Write down the IUPAC name for a possible compound W	<b>9.1</b>	Is this an electrolytic cell or a Galvanic cell?
<b>4.1.2.</b>	Write down the name or formula of R	<b>9.2.1</b>	How will the concentration of Zinc ions be affected during the refining of the copper?

4.1.3.	Write down the two names for the type of reaction in reaction I	9.2.2	Will the amount of copper ions increase or decrease? Explain the answer
4.1.4	Write down the name or formula of S	9.2.3	Calculate the change in mass of electrode R after T hours
4.1.5	Write down the structural formula of compound T		
4.1.6	State reaction condition for the conversion of compound W to T		
4.2.1	Define cracking		
4.2.2	State, besides temperature what will be observed when the mixture is bubbled in bromine gas		
4.2.3	Write down the structural formula of X		
4.2.4	Which compound X or $C_4H_{10}$ reacts faster with $Br_2$ ?		

## 11.7 ANALYSIS OF CANDIDATES' PERFORMANCE IN EACH QUESTION IN PAPER 2

### QUESTION 1: MULTIPLE-CHOICE QUESTIONS

#### Common errors and misconceptions

The overall performance in this section was poor to satisfactory across the provinces, with Questions 1.9 and 1.10 being the worst answered question nationally.

(a) **Organic Chemistry (Q1.1 – Q1.3):**

There was confusion regarding functional groups; candidates often mistook the hydroxyl group (-OH) for carboxyl or carbonyl groups. Misconceptions regarding isomers persist; candidates incorrectly believed structural isomers must always be in the same homologous series, which is not true for functional isomers.

(b) **Rates and extent of a chemical reaction (Q1.4 – Q1.6):**

A major misconception with reaction rates (Q1.4) is that increasing the volume of a solution (e.g., dilute acid) increases the rate of the reaction. Candidates confused *volume* with *concentration* or *surface area*.

For Q1.5, many candidates could not associate an increase in the rates of both the forward and the reverse reactions, without a disturbance in the equilibrium, with a pressure change, when the reactants and products had the same number of moles of gas.

It was also clear that candidates could not illustrate the information given in an energy profile graph for Q1.6 in order to work out the correct possibility in the given options.

(c) **Acids and Bases (Q1.7 – Q1.8):**

Q1.7 assessed acid base reactions which was done in Grade 11. This was a simple question requiring straightforward recall. Many candidates did not remember the products in the reaction between a *metal oxide* and an *acid*.

Q1.8 was poorly answered because candidates failed to understand the relationship between acid strength and pH. A common error was to associate a strong acid with a high pH; learners confused 'strength' (degree of ionization) with 'pH value'.

(d) **Electrochemistry (Q1.9 – Q1.10):**

Q1.9 was poorly answered across all samples. Candidates could not use the *Table of Standard Reduction Potentials* to differentiate between the *anode* and *cathode*. A specific gap is the failure to identify that an inert Platinum (Pt) electrode is required for half-cells containing only ions (e.g.,  $\text{Fe}^{3+}/\text{Fe}^{2+}$ ).

Q 1.10 (electroplating) was also challenging for candidates. Candidates displayed a poor understanding of oxidation and reduction half-reactions, and the composition of the anode and the cathode during electroplating.

### Suggestions for improvement

- (a) **Skills Development:** Answering multiple-choice questions is a learnt skill. Teachers must provide strategies such as the elimination of obvious incorrect options and detecting inaccurate components of multi-part options.
- (b) **Visual Aids:** When graphs or diagrams are presented (as in Q1.4), learners should draw additional information (like activation energy arrows) directly onto the diagram in the question paper to visualise the answer.
- (c) **Content Reinforcement:**
- **Organic molecules:** Functional groups, organic structures and isomerism should be taught in the introduction to organic molecules, and must be revised throughout the teaching of organic chemistry, including the physical properties and organic reactions.
  - **Rates and extent of reactions:** Factors affecting the rate of a reaction; graphs showing disturbances for reactions at equilibrium and energy changes during reactions must be taught with detailed explanations and meaning. Candidates failed to apply such knowledge to questions asked differently, indicating a lack of understanding of key concepts.
  - **Acids and Bases:** Teaching must emphasise that strength relates to the degree of ionization and not concentration.
  - **Electrochemistry:** Teachers must emphasise the conditions for using inert electrodes (Pt/C).

## QUESTION 2: ORGANIC NOMENCLATURE

### Common errors and misconceptions

This question was generally well answered, and obtained the highest average in several provinces. However, specific technical errors still persist.

- (a) **Terminology:** Many candidates did not know that the **hydroxyl group** is the functional group of the alcohols.
- (b) **IUPAC Naming:**
- **Punctuation:** Candidates frequently omitted hyphens between numbers and letters, or used semicolons/commas incorrectly.

- **Numbering:** Common errors were: numbering from the wrong end of the carbon chain; failing to give functional groups or substituents the lowest possible numbers.
  - **Alphabetical Order:** Substituents were often not listed alphabetically (e.g., writing 'methyl-ethyl' instead of 'ethyl-methyl').
  - **Suffixes:** Candidates confused suffixes, such as writing 'but-2-one' or 'but-one' instead of 'butan-2-one'.
- (c) **Formula Interpretation:** Many candidates were unable to analyse **condensed formulae** and failed to convert them into structural formulae, to identify the main chain and functional groups (e.g., recognising a triple bond in an alkyne).
- (d) **Isomers:** While candidates could define 'functional isomer', many failed to apply it to identify specific isomers from a list. A common error in drawing isomers was drawing the same molecule in a different orientation or drawing a mirror image of a given molecule.
- (e) **Stoichiometry (Q2.3.2):** This calculation was poorly answered. Candidates failed to identify the limiting reagent or incorrectly assumed the reaction occurred at STP, inappropriately using  $22.4 \text{ dm}^3 \cdot \text{mol}^{-1}$  for the molar volume.

### Suggestions for improvement

- (a) **Structural Representation:** Teachers must provide practice in converting condensed formulae to structural formulae. This is the critical first step to identifying homologous series and substituents.
- (b) **Naming Rules:** Emphasise that the syllable *-an* is included in the parent name for most compounds (e.g., propan-1-ol) but is excluded for alkenes and alkynes. Strict adherence to IUPAC punctuation (hyphens vs. commas) must be enforced.
- (c) **Isomerism:** Functional isomers (e.g., ketones/aldehydes and carboxylic acids/esters) should be taught as specific pairs with examples.
- (d) **Stoichiometry:** Integrate stoichiometric calculations into organic chemistry topics. Learners must practise calculating excess and limiting reagents using volume ratios for gases. The information provided for stoichiometry and equilibrium calculations is better managed if tabulated. Learners must be taught how to capture given data into tables in order to spot patterns.

## QUESTION 3: PHYSICAL PROPERTIES OF ORGANIC COMPOUNDS

### Common errors and misconceptions

- (a) **Terminology:** A significant conceptual error is referring to *breaking bonds* instead of *overcoming intermolecular forces* during phase changes. Candidates also incorrectly used the term 'molecules' when they meant 'intermolecular forces' (e.g., 'molecules are stronger').
- (b) **Comparison Logic:**
- The use of **comparative** vs. **superlative** degrees was poor. When comparing more than two compounds, candidates failed to use words reflecting the superlative degree, like 'strongest' or 'highest'.

- A number of candidates found it difficult to identify the independent variable (e.g., chain length vs. functional group) responsible for differences in physical properties.
- (c) **Identifying IMFs:** Most candidates could not distinguish between the types of intermolecular forces, often confusing *hydrogen bonding* with *dipole-dipole forces*, or failing to identify that *esters* have *dipole-dipole forces* while *carboxylic acids* have *hydrogen bonding*.

### Suggestions for improvement

- (a) **Step-by-Step Explanations:** Teachers should issue learners with a structured approach to comparison questions:
1. Identify the variable (chain length, functional group, etc.).
  2. Name the specific intermolecular forces involved (London, Dipole-Dipole, Hydrogen bonds).
  3. Compare the strength of these forces (using comparative/superlative language).
  4. Link to energy required to overcome the intermolecular forces and the resulting physical property.
- (b) **Conceptual Clarity:** It is crucial that the difference between **intramolecular bonds** (between atoms) and **intermolecular forces** (between molecules) is emphasised. Phase changes involve overcoming forces, not breaking bonds.
- (c) **Practical Context:** Teachers' use of graphs and tables will expose learners to the relationship between *vapour pressure*, *boiling point*, and *molecular structure*.

## QUESTION 4: REACTIONS OF ORGANIC COMPOUNDS

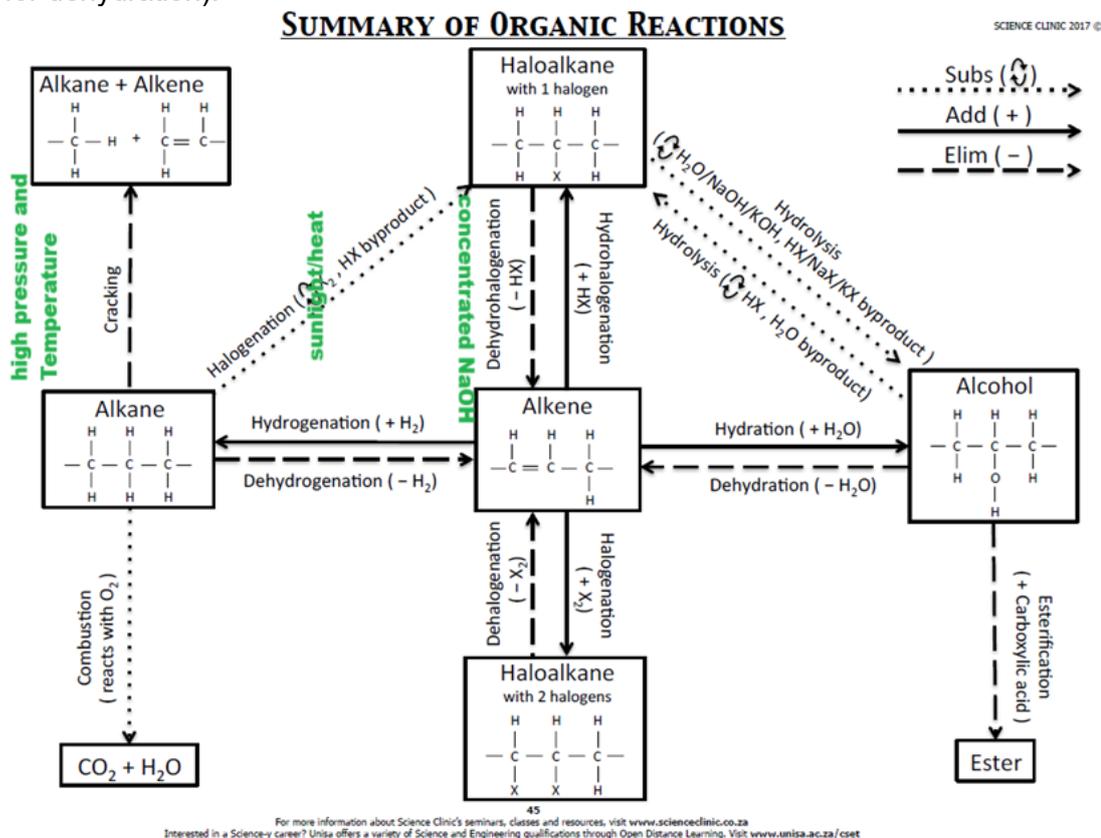
### Common errors and misconceptions

- (a) **Reaction Sequence:** Many candidates were unable to identify the unknown compounds from the reactions provided. They could not work out the product in reaction I, because they failed to see it as a reactant in reaction II. It appeared as though candidates could not establish which reaction would be an appropriate starting point to unpack the other reactions.
- (b) **Definitions:** The term 'cracking' was poorly defined. This precise definition was required for candidates to obtain both marks. The words *molecules*, *compounds*, *alkanes* and *hydrocarbons* could not be used interchangeably for this definition.
- (c) **Formulae:** A number of candidates frequently confused *molecular*, *condensed*, and *structural* formulae, thus, losing marks for providing the wrong format.
- (d) **Saturated vs. Unsaturated:** Many learners could not explain the test for unsaturation (bromine water), incorrectly stating 'colour change' instead of 'colourless' or 'decolourises'.

### Suggestions for improvement

- (a) **Reaction Flow Strategy:** Learners should be trained to analyse flow diagrams and reaction sequences holistically. They should look at the sequence of reactions to deduce reactants from products or work backwards if necessary.

- (b) **Reaction Summaries:** Learners should memorise summaries of organic reactions, specifically linking reactants, products, and specific conditions (e.g.,  $\text{H}_2\text{SO}_4$  and heat for dehydration).



- (c) **Precise Definitions:** Teachers must critique imprecise definitions in class (e.g., explaining why 'breaking large molecules' is insufficient for 'cracking') to ensure accuracy and exam readiness.

## QUESTION 5: REACTION RATES

### Common errors and misconceptions

- (a) **Definitions:** The definition of **reaction rate** was often stated incorrectly as 'rate of change of concentration per unit time', or confused with the speed of particle movement. Candidates also found it difficult to define 'activated complex', often confusing this term with 'activation energy'.
- (b) **Stoichiometry calculations involving reaction rates:** A number of candidates found the interpretation of the graph, to calculate the number of moles of  $\text{O}_2$  from the concentration, to be challenging. They managed to calculate the rate of  $\text{O}_2$  but could not use the stoichiometric ratio of 1:2 to get the rate at which  $\text{CO}_2$  was produced. They often used the initial concentration values instead of the change in concentration to calculate the rate of the reaction.
- (c) **Graph Interpretation:** Candidates failed to distinguish between *rate* (gradient) and *yield* (final volume). Many candidates could not establish, from the graph, that the  $\text{O}_2$  was in excess.
- (d) **Collision Theory:** Explanations were incomplete. Most of the candidates omitted critical phrases like '*effective collisions*' and '*per unit time*'.

- (e) **Maxwell-Boltzmann Curves:** A number of candidates often ascribed changes in the curve to temperature increases, rather than to concentration increases. Hence, a common error was shifting the graph horizontally instead of showing a lower peak at the same kinetic energy value.

### Suggestions for improvement

- (a) **Definitions:** Precise definitions must be learnt using the *Examination Guidelines* as a source.
- (b) **Practical Work:** Experiments involving reaction rates (e.g., varying concentration, temperature or surface area) should be demonstrated to help learners understand and appreciate the concepts and the difference between rate and yield.
- (c) **Graphing Skills:** Accurate graphs should accompany the practical experiments/demonstrations referred to above. Teachers must spend time explaining these graphs, and the possibilities for assessment.
- (d) Learners must practise drawing and interpreting Maxwell-Boltzmann curves, specifically showing how concentration and temperature changes, and how the addition of catalysts reflect on such graphs.
- (e) **Stoichiometry:** Drills on limiting reagents are essential. Learners must understand that the limiting reagent determines the product yield, while the excess reagent does not affect the yield, but may affect the rate of the reaction.

## QUESTION 6: CHEMICAL EQUILIBRIUM

### Common errors and misconceptions

- (a) **Definitions:** Le Chatelier's Principle was often stated vaguely (e.g. 'system opposes change') without the full condition of 'closed system' or 'new equilibrium'.
- (b) **Applying Le Chatelier's Principle:** A number of candidates merely stated the principle instead of applying it to the specific reaction. Common errors included failing to identify whether the forward or reverse reaction was favoured. Many candidates struggled with the integration of the acid-base reaction and the shift in the equilibrium for the reaction in Q6.1.
- (c) **Equilibrium constant Calculations:**
- Candidates incorrectly included the *solid* in the  $K_c$  expression.
  - There was confusion regarding the use of RICE tables, with many candidates often failing to calculate equilibrium concentrations (dividing moles by volume) before substituting into the  $K_c$  expression.

### Suggestions for improvement

- (a) **Structured Explanations:** Instruct learners to use the following 4-step method for Le Chatelier explanations:

1. Identify the disturbance;
  2. State system's response (oppose);
  3. Identify favoured reaction (forward/reverse);
  4. State the final effect (amounts/concentrations).
- (b) **RICE Tables:** Teachers should standardise the use of tables for equilibrium calculations and emphasise that the 'Change' row must align with the stoichiometric mole ratios.
- (c) **Kc Expression:** It is important that teachers drill the following point, *solids and pure liquids have a constant concentration and are excluded from the expression.*

## QUESTION 7: ACIDS AND BASES

### Common errors and misconceptions

- (a) **Conjugate Pairs:** Many candidates were unable to identify *conjugate acid-base pairs*, and provided incorrect formulae such as  $\text{H}_3\text{PO}_4$  as a conjugate base.
- (b) **Hydrolysis:** There is a lack of understanding of salt hydrolysis. A number of candidates could not write balanced ionic equations to show why a salt solution is acidic or basic.
- (c) **Complex acid-base calculations:** Q7.2 was poorly answered. This demonstrated neglect on the part of teachers. Few learners successfully coped with these calculations. However, this should not deter teachers from dealing with them, as they determine the performance levels of better performing candidates.

### Suggestions for improvement

- (a) **Revision:** The teaching of acid-base theory, such as the different models (and their associated definitions); the strength of an acid or a base and acid-base conjugate pairs, must be revised in Grade 12, as it should have been taught in Grade 11. This theory forms the basis for the advanced study in Grade 12. Conjugate pairs are best taught from the Lowry-Bronsted definitions i.e. an acid is a proton donor. So, if the acid donates its proton ( $\text{H}^+$  ion), its conjugate base will have one less H in its formula, and its charge will be reduced by 1, e.g. the conjugate base of  $\text{H}_2\text{PO}_4^-$  is  $\text{HPO}_4^{2-}$ . Conversely, a base receives a proton, so its conjugate acid will have one more H atom, and its charge increases by 1, e.g. the conjugate acid of  $\text{HPO}_4^{2-}$  is  $\text{H}_2\text{PO}_4^-$ .
- (b) **Hydrolysis:** The opportunity to introduce *hydrolysis* presents itself in the discussion after the completion of the *titration* (one of the prescribed practical tasks, involving a strong base and a weak acid). Litmus paper can be used to test the basicity of the neutralised solutions after a while. Learners must then attempt to explain why red litmus turns blue i.e. why the final solution is basic. A detailed explanation of salt hydrolysis should then follow.
- (c) **Complex acid-base calculations:** Multi-step acid-base calculations must begin in Grade 11 as part of the stoichiometry taught. Learners must be exposed to these calculations in Grade 12 again, emphasising the use of the balanced equations and mole ratios. Strategies to answer questions involving a single acid completely neutralised by two bases, and vice-versa, must be provided with several examples demonstrating these strategies.

**QUESTION 8: REDOX REACTIONS AND GALVANIC CELLS****Common errors and misconceptions**

- (a) **Definition of 'electrolyte':** The definition of an electrolyte (Q9.2.1), like many other definitions in this paper, was poorly answered. Key phrases such as 'solution' or 'in water' were omitted. Since there were no part marks for this question, many candidates forfeited both marks for the omission of a single key word or phrase. Some candidates defined *electrolysis*, instead of *electrolyte*.
- (b) **Using the SEP Tables:** A major deficit is the inability to compare strengths of agents using the *Table of Standard Reduction Potentials*. Q8.2 was poorly answered. Many candidates could not see that the reducing abilities of Al and Zn needed to be compared. A number of candidates had little or no idea of how to compare the relative strengths of the reducing agents using the table of standard reduction potentials.
- (c) **Cell Notation:** Most of the candidates failed to derive half-reactions from cell notation or vice versa. Many tried to include inert electrodes (Pt) incorrectly or swapped the anode and cathode order.
- (d) **Standard Conditions:** The majority of the candidates did not use the standard conditions for a galvanic cell (electrolyte concentration of  $1 \text{ mol} \cdot \text{dm}^{-3}$ ) in the calculation for the preparation of the electrolyte.

**Suggestions for improvement**

- (a) **Comparisons:** Learners should be taught to compare species on the **same side** of the Reduction Table. Stronger reducing agents (top right) displace weaker ones; stronger oxidizing agents (bottom left) displace weaker ones.
- (b) **Cell Notation Rules:** The standard format must be drilled: Reducing Agent | Oxidized Species || Oxidizing Agent | Reduced Species. Teachers should emphasise the use of Platinum only when no solid metal is involved as an electrode.
- (c) **Standard conditions:** Learners should know the standard conditions for galvanic cells and this knowledge must be reinforced.

**QUESTION 9: ELECTROLYTIC CELLS****Common errors and misconceptions**

- (a) **Identifying electrochemical cell type:** Many candidates could not identify the given cell as an electrolytic cell, despite the obvious structural differences, such as the presence of the battery.
- (b) **Comparing reducing abilities:** As with Q8, candidates could not use the SEP tables to establish that Zn is a stronger reducing agent than Cu, and  $\text{Cu}^{2+}$  ions are stronger oxidising agents than  $\text{Zn}^{2+}$ .
- (c) **Purification of Copper:** Candidates failed to understand that impurities (like Zn) oxidize at the anode along with Cu, but  $\text{Zn}^{2+}$  ions are not reduced at the cathode. Mass calculations were poor; candidates could not account for the mass loss of the anode (due to both Cu and Zn oxidizing) versus the mass gain at the cathode (only Cu formed).

### Suggestions for improvement

- (a) **Time allocation:** The required time allocated in the *ATP* must be used when teaching this topic. Although electrochemistry is taught towards the end of the third term, teachers need to allocate more time for the teaching of this topic. They must not be pressurised to 'complete the curriculum' to accommodate revision programmes forced upon them. The Grade 11 work (redox reactions) must be revised in Grade 12.
- (b) **Comparison Strategy:** Reinforce the use of the Standard Reduction Table to predict what will be reduced (the stronger oxidizing agent) and what will be oxidized (the stronger reducing agent).
- (c) **Diagrams:** Use diagrams to track the movement of ions and electrons in electrolytic cells, explicitly showing the formation of copper in the refining process.
- (d) **Integration:** Q9.2.3 Involved the integration of an electrolytic process with stoichiometry. Teachers must exploit the opportunities to introduce stoichiometry across the chemistry curriculum in order to familiarise learners with integrated assessment.