



EXAMINATIONS AND ASSESSMENT CHIEF DIRECTORATE

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2024 NSC CHIEF MARKER'S REPORT

SUBJECT	Computer Applications Technology		
QUESTION PAPER	1 X	2	3
DURATION OF QUESTION PAPER	3 hours		
PROVINCE	Eastern Cape		
NAME OF THE INTERNAL MODERATOR	Mr M.H. Langenhoven		
NAME OF THE CHIEF MARKER	Mr S. Mfamana		
DATES OF MARKING	1 - 10 December 2024		
HEAD OF EXAMINATION:	MR E MABONA		

SECTION 1: (General overview of Learners Performance in the question paper as a whole)

The paper was of a high standard testing candidates' abilities on a wide variety of skills. The paper had something of everything for every type of candidate. It seems like many learners attempted something in question 7, more so than in the past. The sample that was selected for the analysis was made up as follows: 30 candidates below 40%, 40 candidates between 40% and 70% and 30 candidates above 70% in an attempt to get a representative spread of performance. Based on this spread the results showed an improvement on previous years' performances.

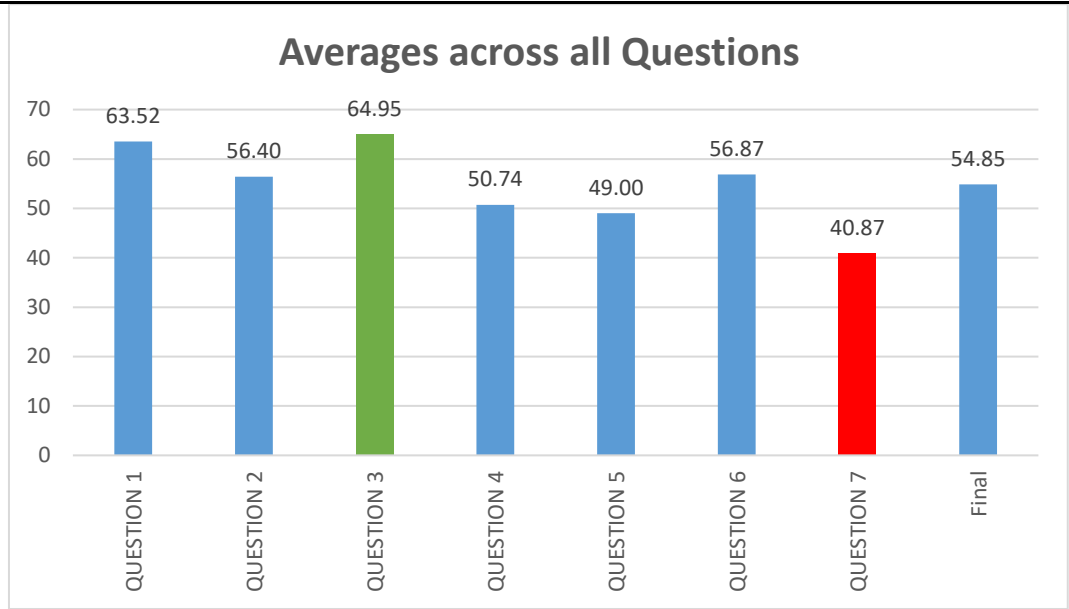


Figure 1: Averages across all Questions

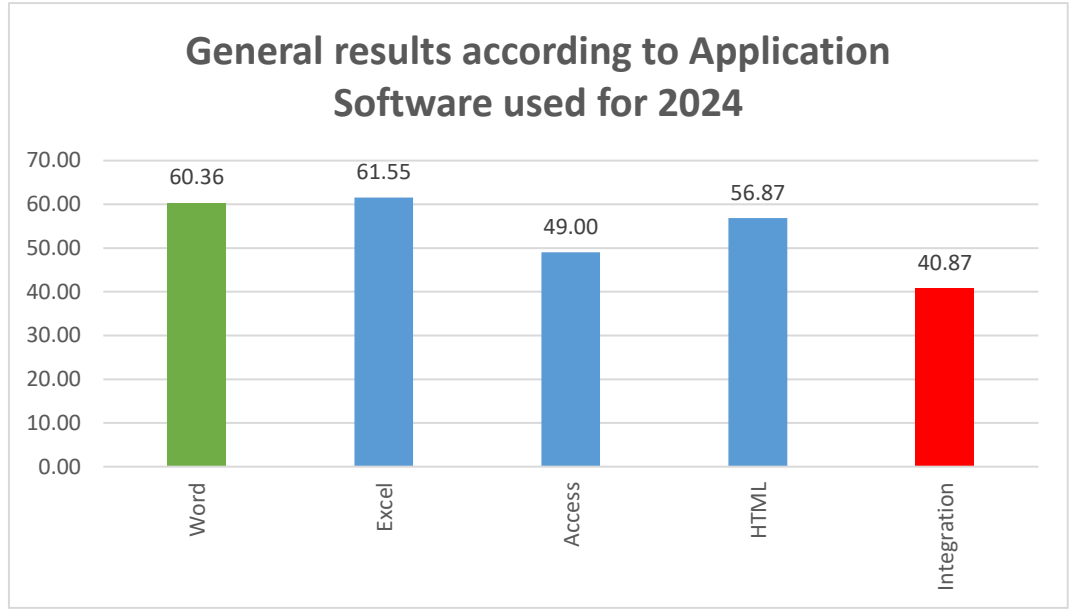


Figure 2: Results according to Application Software

In figure 1, the averages per question for the 100 scripts captured show a general improvement in overall performance. The most significant improvements are in the spreadsheets questions (question 3 and 4), the database question and the integration question. As shown in figure 2, the word processing questions still remain high performers, but this year the spreadsheets questions moved into first place with the integration question still the lowest performing question.

SECTION 2: Comment on candidates' performance in individual questions

QUESTION 1

(a) General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?

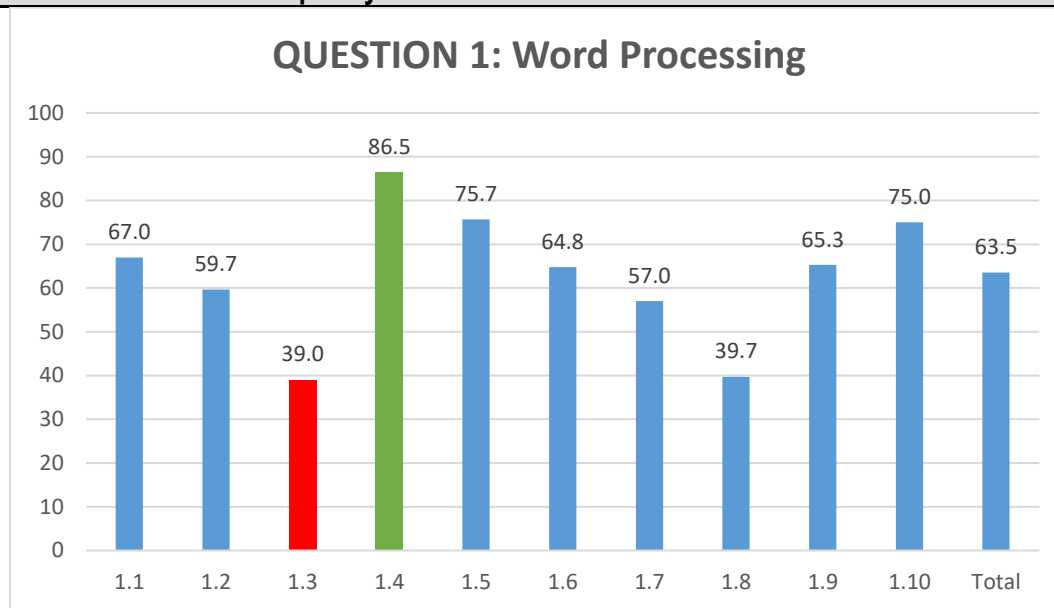
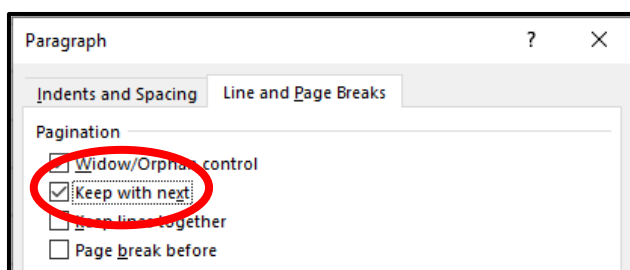


Figure 3: Question 1 Analysis

In general the candidates performed well in this question. In the sample the highest mark was 24/25 and the lowest 1/25 with the mode and median marks 17/25 and the average mark 15.9/25. This indicates that most candidates attempted the question and performed relatively well.

Question 1.3

This is the sub question that was answered the poorest. Candidates had to make use of the "Line and Page Breaks" feature to switch on the "Keep with next" option (See screenshot below). This is a skill that is taught in grade 12, but generally not much time is spent on this as it is deemed a relatively easy concept. The question did not tell the candidate which feature to use to accomplish the task, making it a higher order question as the candidate had to interpret which skill was required.



Question 1.6

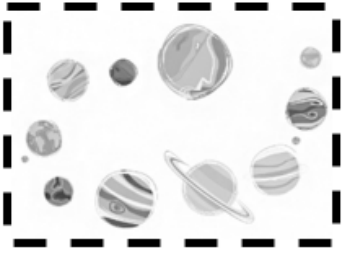
A border was placed around the picture in the question paper to indicate that it is a picture in the question paper (See screenshot below). Some candidates attempted to place a border around the text as well as

the dashed border around the picture of the planets. Most candidates did not know how to add a new label (Space) as a caption to the picture of the planets.

Planets:

As per the Scientific Union of Astronomers, an object is said to be a planet if —

1. It orbits around a star.
2. It is big enough to look like a sphere.
3. It has a specific orbit that is not occupied by any other heavenly body.

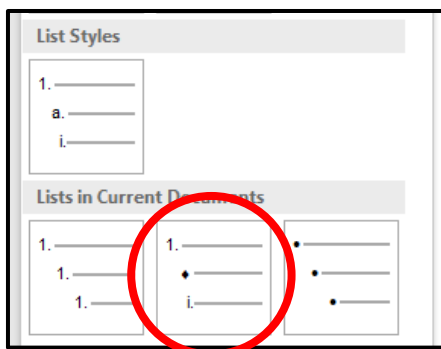


Space 5: Planets

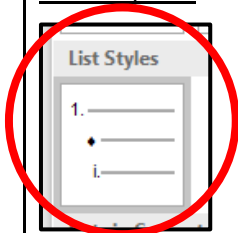
Question 1.8

This question required the candidates to **change** an existing number list style to look like a picture provided. Most candidates did not do this and also did not see from the picture that there was a fourth bullet, and third on the list ("♦ Mercury's one year is..."), to the list. That is two marks out the three marks that they lost.

Incorrect place



Correct place



(b) Provide suggestions for improvement in relation to Teaching and Learning

All relevant parties (teachers and candidates) underestimate the difficulty level of the word processing questions and therefore focus on the other applications they deem more challenging when preparing. Candidates who are well prepared in word processing will perform better in the question. Revision programs should include all word processing skills obtained throughout the three years in CAT. Many teachers do not revise skills taught in grade 10 and 11 in grade 12 and candidates tend to forget how to perform even the most basic skills learned in earlier grades.

Teach candidates that borders around pictures in the question paper is there to indicate that it is a picture in the question paper and is not necessarily a skill they need to perform unless explicitly stated in the question paper.

Teachers should also consult their ATPs and examination guidelines and ensure that all aspects therein are covered in preparation for the exams.

Winter and spring schools should be set up for candidates, especially for those candidates who do not have access to computers at home.

Where applicable teachers should show candidates that there are often more than one way to accomplish the task.

Updated study material is also essential for improvement.

(c) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.

Candidates should read questions carefully. Careless mistakes are made because they do not read properly. This includes pictures with very little further instructions. Candidates miss required changes because they do not know how to look for the differences in the question paper vs. what is presented in the live electronic data.

Teachers should work through previous exam papers to help candidates acquire these skills.

Teachers should ensure that they know what is required of the candidates based on the ATPs and Examination Guidelines.

Teachers should upskill themselves as well. Do advanced courses on word processing, write exams, especially if a new version of the software becomes available. Make use of online resources freely available.

Schools must ensure that there are enough computers in working order for every learner to have access to a computer when teaching and learning takes place.

QUESTION 2 (Summary)

(a) General comment on the performance of Candidates in the specific question. Was the question well answered or poorly answered?

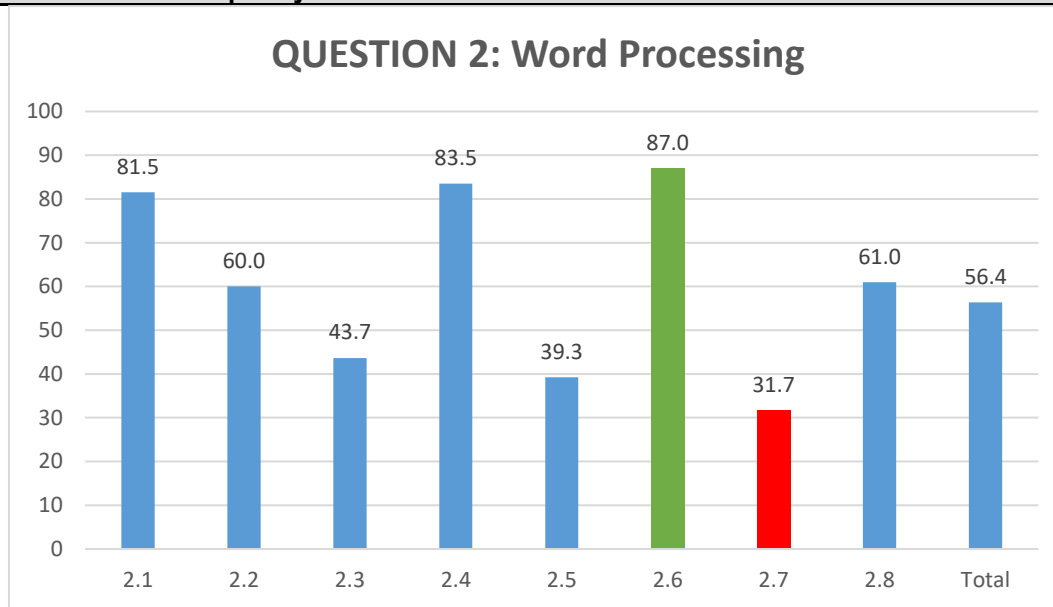


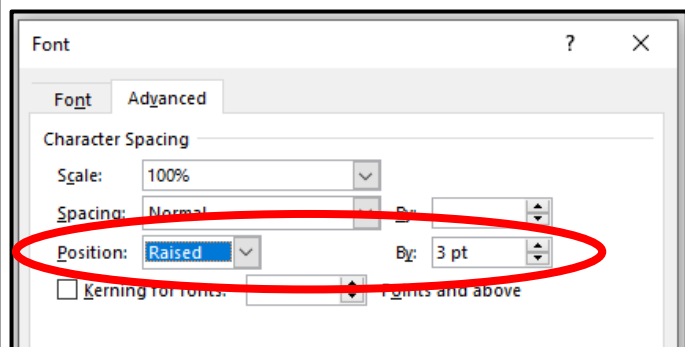
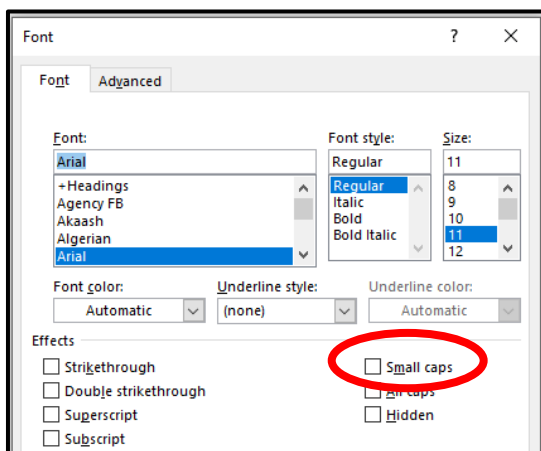
Figure 4: Question 2 Analysis

In general, again, candidates did fairly well in this question. The lowest mark was 0/20 and the highest mark 20/20. The average mark was 11.3/25, the mode mark was 14/20 and the median 11/20. The question had a good spread between lower, middle and higher order questions.

(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.

Question 2.3

The question about find and replace are normally a higher order question, because it includes some special formatting that the candidate needs to perform. This year was no exception with candidates having to apply a font effect (Small caps) and an advanced font effect (Raised by 3pt) (Note: see screen shots below). Candidates do not know how to access special features when applying their find and replace skills.



Question 2.5

This was a question regarding tab stops. This is a skill that is taught in grade 10 already and one of the skills learners struggle with every year and in every grade. This year was particularly challenging as all the candidates had to work off a picture in the question paper (See screenshot below). Candidates did not look at the specific settings regarding every tab stop that was placed in the picture or did not understand the significance thereof.


Moon Phases for 2024		
New Moon _____	September 3, Tue	03:56
First Quarter _____	September 11, Wed	08:06
Full Moon _____	September 18, Wed	04:36
Last Quarter _____	September 24, Tue	20:52
New Moon _____	October 2, Wed	20:50
First Quarter _____	October 10, Thu	20:56
Full Moon _____	October 17, Thu	13:27
Last Quarter _____	October 24, Thu	10:05
New Moon _____	November 1, Fri	14:48
First Quarter _____	November 9, Sat	07:56

Question 2.7

This was a higher order question which most learners could not do and was the sub question they did the worst in. There were a number of concepts tested in the single question. Candidates needed to understand how a watermark works, how to add a symbol, ensure that the symbol displays correctly by choosing the correct font and set the font size to a very large number.

All settings required for expected output

Possible expected output



Printed Watermark ? X

No watermark

Picture watermark

Selected Picture...

Scale: Auto Washout

Text watermark:

Language: English (South Africa)

Text: →

Font: Webdings

Size: 800

Color: Semitransparent

Layout: Diagonal Horizontal

Apply OK Cancel

(c) Provide suggestions for improvement in relation to Teaching and Learning.

As in question 1, teachers and candidates underestimate the difficulty level of the word processing questions.

Accuracy is also important. The correct skill should be applied at the correct position.

They also do not revise as thoroughly as they should, including grade 10 and 11 work, as revision time is spent on other (perceived to be) more challenging questions and even though the two word processing

questions are the questions candidates generally perform the best in, they lose marks that are generally considered to be easy.

Also work through old papers to improve on their skills in the word processing questions in general.

Teachers should consult the ATPs and Exam Guidelines to know what is expected. Also read the examiner's report to see what common mistakes are made to fix common mistakes.

(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.

Again, candidates should read questions carefully and do only what is required. This is a skill that should be practised.

Teachers who lack advanced skills in word processing should attend a course/do an online course/look for online sources to improve on these skills.

Subject advisors could assist by sourcing courses or funding to aid teachers who need assistance in improving their own skills.

QUESTION 3

(a) General comment on the performance of candidates in the specific question. Was the question well answered or poorly answered?

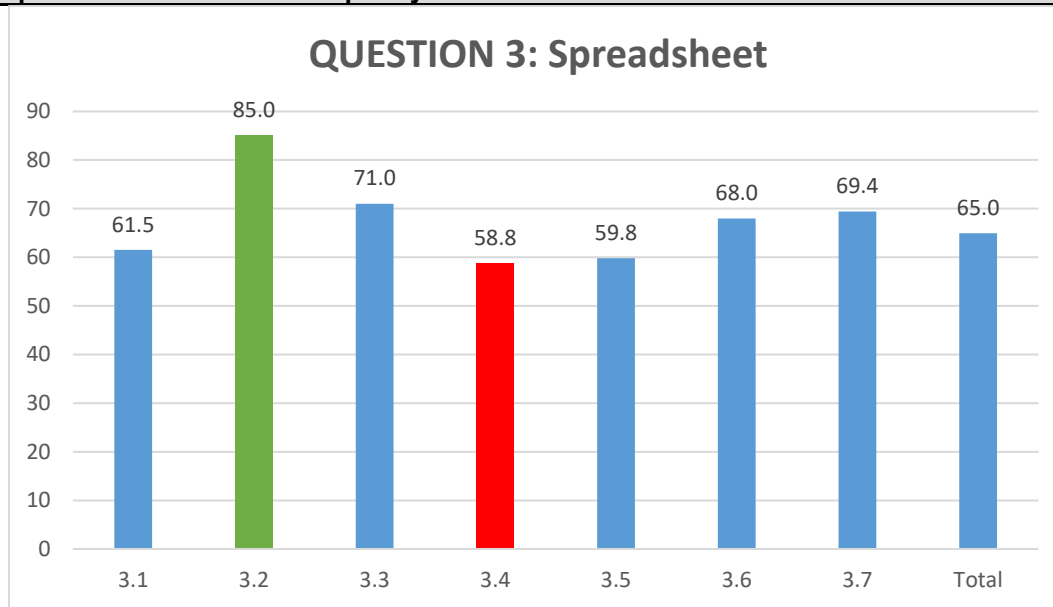


Figure 5: Question 3 Analysis

Based on overall performance per question this is the question that was answered the best by the 100 candidates sampled. It seems like the average to above average candidates did better in the spreadsheet questions than in the word processing questions this year. If the below average candidates' results are excluded the difference becomes even more accentuated. This further strengthens the argument that teachers and candidates' focused more on the more challenging applications, e.g. spreadsheets, than the perceived easier ones, e.g. word processing. The highest mark achieved was 21/21 and the lowest was 0/21. The average mark was 13.6/21 with the mode mark 20/21 and the median 16/21.

(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.

From the 100 candidates sampled no sub question was poorly answered with the lowest question 3.4 at 58.8%. Candidates did however make one common mistake: They referenced data within the range they are looking for in their calculation.

Question 3.4

An example is added below to illustrate that. Instead of using the word "Delivery" in quotation marks learners used a cell reference within the range, e.g. G38 in the example below.

Question 3.4 Vraag 3.4	=COUNTIFS(G10:G49,G38,H10:H49,">=R1000")				
Product Produk	Quantity Hoeveelheid	Price Prys	VAT BTW	Shipment method Versendingsmetode	Total cost Totale koste
Galaxy Crystal Ball	2	R449.00	R134.70	In Store	R1 032.70
Kids Galactic Telescope	2	R399.00	R59.85	Delivery	R917.70

It seems like teachers are still teaching this as a skill and it will cost learners a minimum of 1 mark in every spreadsheet question that they attempt.

Another common mistake is that candidates still type in expected answers in the hope that it will get them some marks.

Lastly, candidates still add SUM in front of a simple formula, e.g. =SUM(E11*15%)*2, probably because they think every calculation needs a function to work.

(c) Provide suggestions for improvement in relation to Teaching and Learning

Teachers should emphasise that there is more often than not more than one way to solve a problem. This is often evident from the number of alternative answers included on the marking guideline.

Teachers should also aim to teach candidates that one cannot merely start answering a question without understanding the question. There are various skills that help identify the problem and the steps needed to follow to solve it. A problem is solved by following a number of smaller steps, not just one big step. The use of building blocks where applicable is strongly advised as this could help candidates achieve part marks for those specific questions, especially the higher order sub questions.

Candidates must practise and revise using past papers as a reference point to indicate what they do not understand. This can happen under the guidance of their teachers.

Teachers need to identify which sections their candidates struggle with in every practical paper they write up to the trial exam. This can be done by using a question-by-question analysis. This would largely assist in identifying problem areas that teachers can address.

(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.

Candidates are encouraged to use features and functions as much as possible, even if the question does not explicitly state so. Often, candidates lose marks because they did not use the required feature or function to calculate the correct answer.

Teachers should do as much as possible to upskill themselves in order to better understand and

therefore better explain complex problems in spreadsheets.

QUESTION 4

(a) General comment on the performance of candidates in the specific question. Was the question well answered or poorly answered?

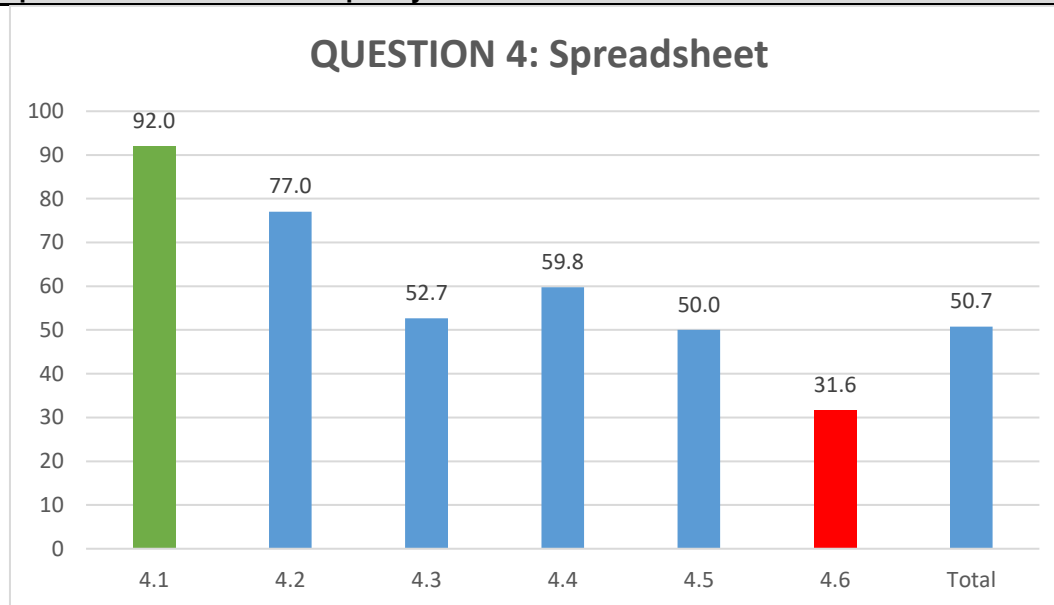


Figure 6: Question 4 Analysis

This question was fairly well attempted and compared to previous years, it was very well attempted. It is a firm belief that question 4.6 was poorly answered not in the first place because of the CAT content that was tested, but due to the accounting. More on this below. The highest mark was 19/19 and the lowest 0/19. The average mark was 9.6/19, the mode mark 18/19 and the median mark 10/19.

(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.

Question 4.3

This question was answered better than expected as very little guidance was given to show how it should be answered. Learners had to know which function (SUMIF) to use and how to use it. The most common mistakes were using the incorrect function, either COUNTIF or SUM. Also the use of a cell reference within the range was again a common mistake.

Question 4.5

Candidates in general struggle to work with date functions. This was the case again this year, although this was an easier date calculation than in past papers. The most common mistake was candidates using the date they wrote the exam as the current date, which was asked in the question, instead of using the TODAY function.

Question 4.6

This was an extremely challenging question for all candidates but especially so for the average and below average candidate. They always struggle with a nested if question, combining it with an AND function made it even more challenging and finally adding complex accounting knowledge of how to

calculate various discounts based on different criteria put it beyond the understand of the majority of candidates. On top of that, question 4.6 partly refers to the answer to the calculation of question 4.4. If the candidate struggled with 4.4, it would influence their attempt of 4.6. Included with all of this is the fact that there was no data below to show expected outcomes for other data used in this calculation and therefore a candidate would not be able to test their attempts with expected outcomes.

(c) Provide suggestions for improvement in relation to Teaching and Learning.

See the answer to this question under question 3's discussion. Most of it is relevant here as well. It is important to highlight again that the use of building blocks should be emphasised from grade 10 already to make candidates used to using this facility, again in an attempt to get part marks for certain more challenging questions.

Added to that, teachers should aim to teach from more than one source/textbook. Functions like AND/OR should be explained as it often appears in question papers and candidates seem to be inadequately prepared for these.

Also teach candidates to use the Function Arguments dialog box which would assist in identifying the parts that make up a lesser known function and how it is used.

(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.

Candidates who struggle mathematically, or in this case lack accounting ability, always tend to struggle with the more mathematically inclined questions.

Teachers could use phase 2 of the PAT as an opportunity to guide candidates to explore functions and features within spreadsheets that traditionally fall outside what is taught in the textbook.

Make use of more resources than just one textbook.

Work with schools in the area that excel (pardon the pun) in spreadsheets and get those teachers to act as guest presenters to teach concepts that teachers of the struggling schools do not understand themselves or get them to train these teachers.

Again, teachers should make use of every possible opportunity to upskill themselves. Subject advisors can play a pivotal role in identifying teachers who need to be trained as well as find possible courses and funding to assist them therein.

QUESTION 5

(a) General comment on the performance of candidates in the specific question. Was the question well answered or poorly answered?

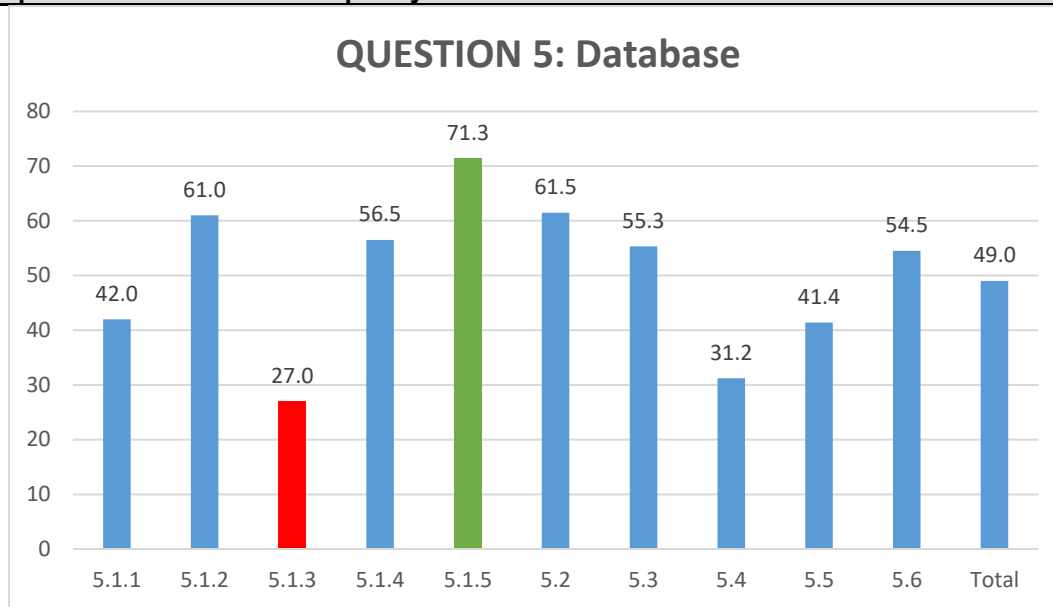


Figure 7: Question 5 Analysis

Compared to last year's results in question 5 the class of 2024 had a much improved performance. The highest mark was 35/35 and the lowest mark was 0/35. The average mark was 17.2/35, the mode mark 19/35 and the median mark 18/35. Question 5.1.5, the question candidates did the best in was quite surprising. Candidates had to import data from a spreadsheet into a table, which is normally a skill that candidates struggle with. The question included sub questions which all candidates should have been able to do if they were well prepared.

(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.

Question 5.1.1

Many candidates, close to 60%, did not know how to manipulate how a field displays by changing how it is formatted.

Question 5.1.3

Question 5.1.3 was the question with the worst performance. It was the question about the validation rule and text and is understandable because it worked with dates which candidates usually struggle with. Candidates struggle with date calculations as well as the greater than (>) and smaller than (<) logic.

Question 5.2

The performance in this sub question is misleading, because it included two marks that most candidates did not achieve. There was an input mask question, which is normally tested in the table, and this time it was required to be done in the form. The question itself was also misleading because it stated that the input mask **was** placed the field, creating the impression that it was already done when candidates were expected to still perform the task. As a consequence many candidates probably left it as it was a skill not previously tested and it was poorly phrased in the question paper.

Question 5.4

This question deals with wild cards and AND/OR logic which are two concepts candidates tend to struggle with every year.

Question 5.5

The candidates were expected to change an existing query to give a specific output. A field had to be removed. Many candidates chose to hide the field instead of removing it, yielding an incorrect output. Many candidates also did not know how to move one field to appear before another.

(c) Provide suggestions for improvement in relation to Teaching and Learning

Candidates struggle with queries. More time should be spent on teaching skills around creating and editing/modifying queries. Validation rules and text are also challenging for many candidates. Teachers should focus on these skills, but not neglect the others.

When working on phase 2 of the PAT, teachers should use that opportunity to teach content beyond the textbook like using an IIF function in a query or a report, for example or using different features.

Access to computers with Access database software installed on it is of paramount importance to candidates' development. One can only improve if one can practise. Most people cannot afford the more expensive version of Office which includes Access. Therefore, computers need to be available for candidates to practise their database skills beyond time in the classroom during the normal school day.

Practise by doing old question papers and identifying areas of struggle or uncertainty.

(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.

It is clear that certain centres did poor as a whole and others did well as a centre in this question. This serves as an indication that some teachers are lacking the skills required to teach this application well on a level that makes it accessible to the candidates. These teachers should be identified by subject advisors and every effort should be made to improve these teachers' knowledge and confidence in order to make it a transferrable skill.

Granted, the skills required in the application is specialised, but is achievable. Get teachers to go on courses to upskill themselves, or get high performing centres' teachers to teach certain topics to struggling schools' candidates and/or teachers.

QUESTION 6

(a) General comment on the performance of candidates in the specific question. Was the question well answered or poorly answered?

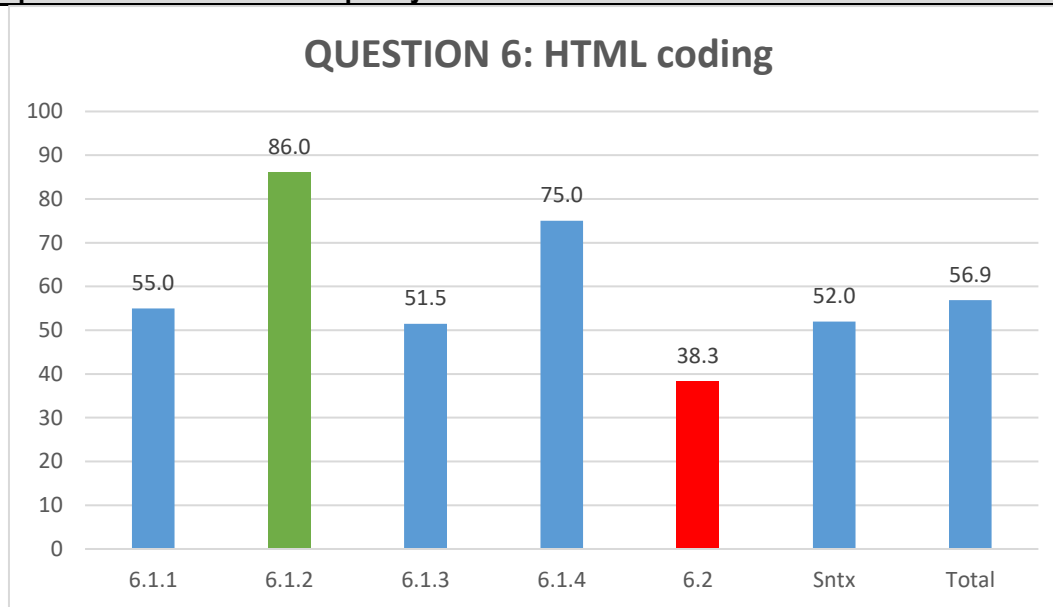


Figure 8: Question 6 Analysis

Candidates performed fairly well in this question with only a slight overall improvement from last year's results. The highest mark was 15/15 and the lowest 0/15. The average mark was 8.5/15, the mode mark was 11/15 and the median mark was 9/15. The candidates seemed to find the question on tables challenging once again and question 6.2 was poorly attempted by most.

(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.

Question 6.1

The picture in the question paper for this web page did not show that the background image was tiled. Some candidates could have wasted time trying to get that fixed to resemble the picture in the question paper, which is a skill that is not specifically taught in the subject.

Question 6.1.1

Candidates were required to enter their examination numbers as a comment to the HTML code. It is worrying that only 55% of the candidates could manage to perform such a simple task, with the code available on the HTML tag sheet, and also having many examples within the code itself already as comments are used to indicate where the candidate is expected to put their code to answer a specific sub question.

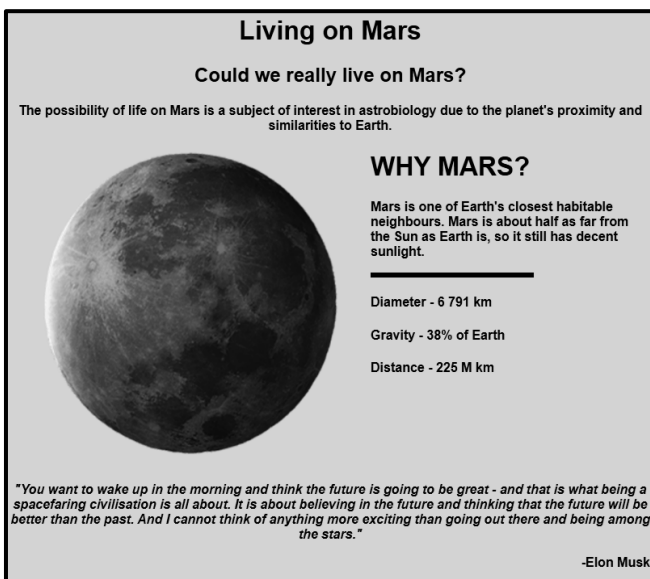
Question 6.1.3

As mentioned above, candidates struggled with formatting the table in HTML code once again. A picture is provided to show the expected result and most candidates could not perform this to a satisfactory level. Common mistakes include not knowing where to input the attributes to change the formatting of the table, e.g. cellpadding and rowspan, and not knowing the difference between cellpadding and cellspacing.

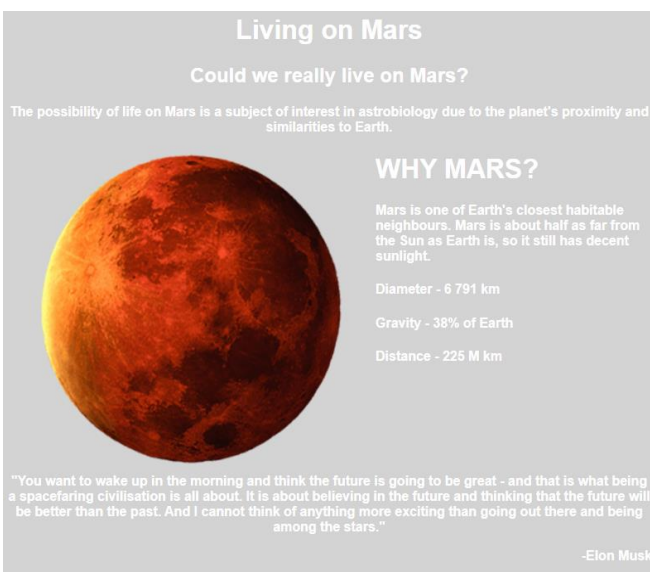
Also, there was a question to change an ordered list to unordered list, where two mistakes were made and needed fixing. Many candidates saw that they had to change the to but most did not see that the attribute style="circle" had to change to type="circle" in that list.

Question 6.2

Candidates' attempt of this question was the poorest with only 38% achieved. Part of the reason is the way in which the question was asked. Only a picture (See example below), in black on white text, was given with the instruction that candidates had to modify the HTML code to resemble the picture, but in reality the HTML was in colour. The three changes required was to change the font colour from white to a dark colour, add the missing <hr> tag to attributes already included in the code and to change the last paragraph to display italicised. Most candidates complete missed the font colour and italicised paragraph and tried to add a new horizontal line by creating it from scratch not noticing the attributes were already added.



Picture candidates received in the question paper



What they saw in the web browser without editing

Syntax

The last mark is allocated to syntax mistakes. Candidates are not accurate enough when adding syntax and often lose this mark because they either left out a closing tag or got the nesting wrong.

(c) Provide suggestions for improvement in relation to Teaching and Learning

Teachers should teach HTML exclusively through Notepad++ and only use the web browser to check the expected output. Notepad++ adds coloured tags which aids in identifying certain syntax errors, e.g. tag pairing.

Teachers should know which tags are required in the CAPS and Examination Guidelines and ensure the candidates know how to use them.

Candidates should know how to use the HTML tag sheet effectively. They do not need to know the tags off by heart, but should know where to look for the tags they need to use and how to apply it.

Teachers should emphasise accuracy regarding the syntax in HTML coding to help candidates not to lose the last mark.

Use phase 3 of the PAT to improve candidates' HTML skills.

(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.

HTML is the section in CAT which is enjoyed by most of the candidates, because it is relatively easy and it is fairly quick to see your results. It also allows for much creativity.

Teachers need to ensure that they have a thorough understanding of the basic HTML tags taught in the subject. Again, they need to upskill if they lack the knowledge required.

Most teachers should not struggle with HTML coding on the level it is presented in CAT and should work on their confidence when teaching the content. Encourage candidates to explore. There are wonderful sites available which one can use to improve on one's own HTML coding ability.

QUESTION 7

(a) General comment on the performance of candidates in the specific question. Was the question well answered or poorly answered?

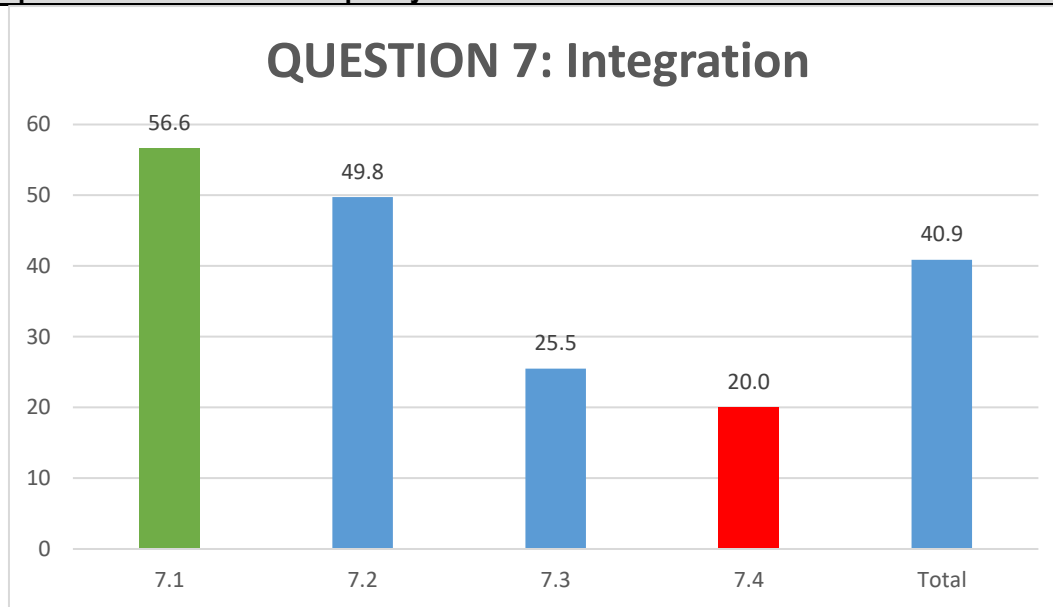


Figure 9: Question 7 Analysis

The majority of the candidates attempted this question with the exception of question 7.4. In general this question was answered better than in previous years. Looking at the graph above the decline in performance from question 7.1 to 7.4 is evident. Various applications were tested in this question with varied success. Lack of time and the difficulty of the questions were the two major contributing factors in the performance of the question. The highest mark was 15/15 and the lowest mark was 0/15. The average mark was 6.1/15, the mode mark 0/15 and the median mark was 6/15.

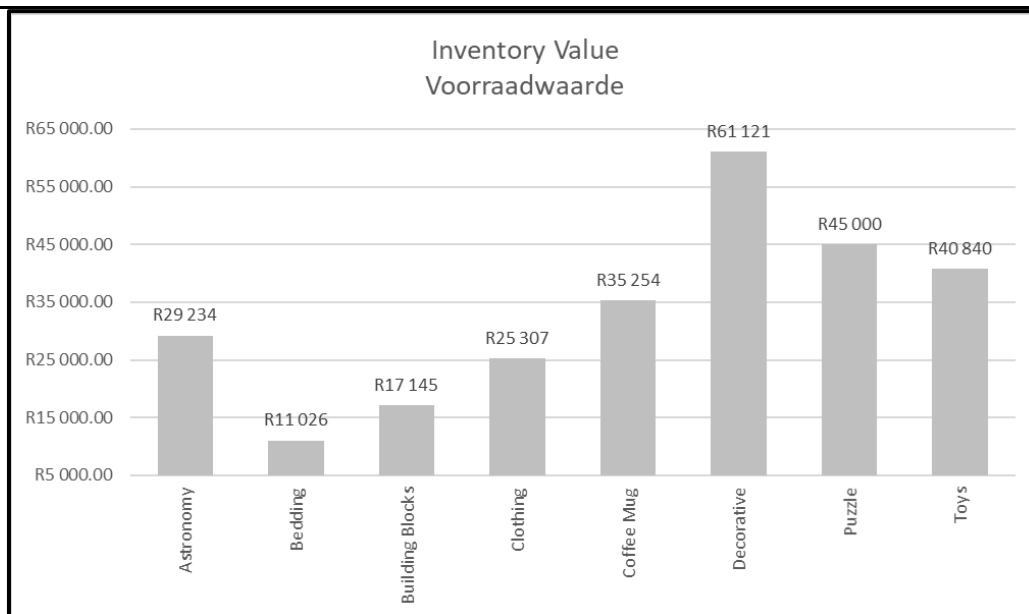
(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.

Question 7.1

Many candidates were able to perform a basic mail merge, but many were not able to filter the list to include only the recipients who qualified to receive the document. Many also did not know how to save the original document once the mail merge is completed or how to save the merged document after the merge was completed.

Question 7.2

The candidates were given a picture (see screenshot below) of what the chart had to look like and had to change the given chart to look like this. Most candidates could do parts of it, but most missed the fact that the data labels had no decimals, and many missed the fact that the vertical axis started at R5 000,00.



Question 7.3

This question required candidates to insert a linked icon to an existing spreadsheet and most of them did not know how to do it. The most common mistake candidates made was to insert a hyperlink to the file, which was not worth any marks.

Question 7.4

This question required the candidates to use the subtotal feature in a spreadsheet. The list was not sorted and would not produce output that made sense if this was not done. Most candidates simply did not do anything in the question. The only assumption one can make is that either they did not have time or, because the list was not sorted, they did not know where to start.

(c) Provide suggestions for improvement in relation to Teaching and Learning

More time should be spent on mail merge. It is a relatively easy question which could help candidates achieve a fair amount of marks, but is a skill that seems to be neglected when it comes to teaching.

Teachers need to teach candidates to read a picture carefully and to identify all differences for possible changes that need to be made. Small changes are often missed testing relatively easy skills.

Integration between applications need to be revised as well as this is often tested and poorly answered.

Teachers should spend more time on spreadsheet features like subtotal and data validation. Questions on special features are often included in question 7.

Candidates should be encouraged frequently to explore features that different applications offer and how it works.

Taking part in activities outside the classroom, e.g. Olympiads like the Computer Applications Olympiad, will also challenge candidates to use features not necessarily taught in CAT itself.

Work through past papers as much as possible to get used to the structure of the question paper. Do a paper under similar conditions to an exam to test candidates' ability to work under timed pressure, even if it does not count for marks.

(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.

Accuracy is important in all the questions. Calculations should be done in the correct cells in the spreadsheet questions, spelling of function names in spreadsheets and criteria in database questions is important.

New features and functions are available in spreadsheets, e.g. IFS, CONCAT, etc, and should be included into the ATPs

Access to resources like textbooks and computers are essential to improve on skills tested in the question paper.