

ASSESSMENT AND EXAMINATIONS DIRECTORATE

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NSC 2015 CHIEF MARKER'S REPORT

SUBJECT	INFORMATION TECHNOLOGY PAPER 2
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DATE OF EXAMINATION:	13/11/2015	DURATION:	3 HOURS
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SECTION 1:

(General overview of Learner Performance in the question paper as a whole)

A total number of 393 learners from 30 centers entered for the exam, of which 6 learners from 6 centers were absent on the day of the exam. A total number of 287 scripts were marked and at least 10% of all scripts were moderated.

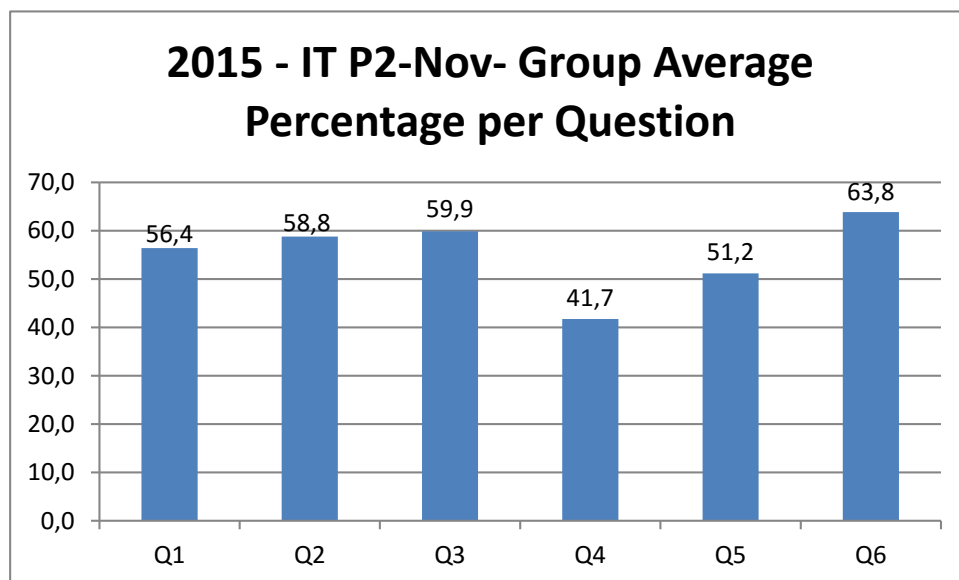


Figure 1: Analysis of questions

- Each question had sub-questions of lower, middle and higher cognitive order as well as easy, medium and hard questions.
- Question 4 was on Data and Information Management. The SQL questions were fairly good answered, except 4.1.3(c) and 4.1.4. The biggest concern in this question was the other aspects of Data Management. As if only SQL was done in the classroom on this topic.
- Question 5 was on Solution Development. There can be different reasons for the poor answering of this question:
 - Time might not be set apart in class to teach the learners how to answer question on the practical work done during the year.
 - The theory paper is written too long after the practical paper. The learners either forget to go through the practical work again or they don't have time to do it again. I would suggest moving these two papers closer to each other.
- In most of the cases ALL the answers were answered. Only about 3 learners seem not to finish the paper possibly because of time. I feel that there was more than enough time to finish the paper properly.
- The language of the questions was easy to be understood.

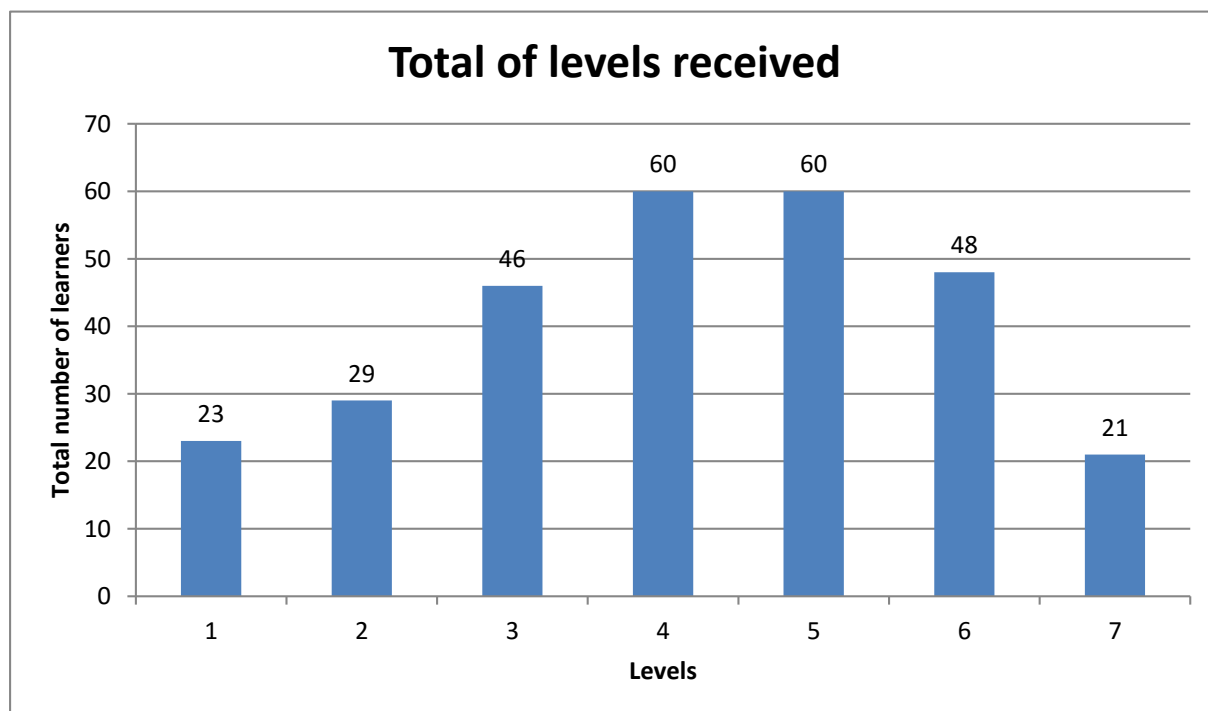


Figure 1: Analysis of levels received after marking all question papers.

SECTION 2:

Comments 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?

- The total average for the question is 56%.
- Question 1 consisted out of 10 marks on terminology and 5 on multiple choice questions.
- The multiple choices were well answered.
- The terminology questions were not always answered well. Probably because it was a new way of asking the questions for the learners.

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

- The type of question differed from the way it was asked in previous question papers. This might have confused some of the learners.
- The terminology questions were not always answered well. Probably because it was a new way of asking the questions for the learners. It was purely based on recalling knowledge.
- Learners are prone to make obvious mistakes because they are too hasty.
- Answers were left open where the learners might have forgotten to come back. Even multiple choice questions (very little) were left open which is unacceptable.

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

- Educators can provide learners with lists of terminology that they can study before the exam.
- Let the learners write lots of tests on this terminology throughout the year.
- Encourage the learners to answer the multiple choice questions rather after the terminology than on the grid provided as they are prone to forget to go back to the grid and it is also easier to mark on the lines in the script.

(d) Describe any other specific observations relating to responses of learners

- Sometimes the learners will draw a line through the correct answer and write a wrong answer instead.
- Tell the learners never to leave open a multiple choice question. They have a 25% chance of guessing the correct answer.

(e) Any other comments useful to teachers, subject advisors, teacher development etc.

- Comments stated at (c).



QUESTION 2.

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

- The average on question 2 is 58.8 %.
- It is good to see that the learners didn't use the answers 'cheaper' and 'faster' commonly to answer the questions.

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

- 2.1.3 (a) – Did not know what SATA connectors are used for.
- 2.2.2 – Virtual memory is sometimes confused with virtual machines or with the Internet. The answer should also include the swapping of processes out of memory to virtual memory to make space for processes the CPU is currently working on. Specify that memory is HD space acting as RAM. Not 'virtual memory is memory...'.
- 2.3 – Thin clients not understood properly as totally dependent on the server.

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

- Make use of physical components in the class to show the learners what the hardware looks like so they will understand the content better.

- **Describe any other specific observations relating to responses of learners**
- Make sure two facts are stated when the answers requires you to differentiate (2.2.4).
- Do not repeat the answer by stating two facts that are actually the same.
- Teach the learners to look at the mark allocation of the questions in order to get full marks for the question.

QUESTION 3.

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

- The average on question 3 is 59.9 %.

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

- Answers were not always answered according to scenario. (3.5)
- 3.6 – A lot of learners left out to state that VPN is a secured network.
- 3.8.1 – ‘Internet of things’ was poorly answered. Probably because it is a rather new concept and still evolving.

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

- 3.3 – Make sure the learners understand ADSL connectivity.
- 3.3 – Make sure learners know the difference between digital signature and digital certificate.
- Stay up to date with the newest technologies. Let the learners tell the rest of the class when they found out something new so everyone can learn and stay up to date.

(d) Describe any other specific observations relating to responses of learners

- When answering the network section, be careful of only using the word ‘fast’. Rather explain why you would say it is fast/faster.

QUESTION 4.

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

- The average on question 4 is 41.7 %.
- SQL were fairly good answered.
- The rest of the question was answered poorly in most cases.

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

- This question was on Data and Information Management.
- 4.1.2 – did not know answers about Database relationships and compound keys.
- 4.1.3 (b) – The learners didn't refer back to the Database given to answer these questions. Make sure all fields are used to complete SQL.
- 4.1.4 – Learners struggled to correct the given SQL statement.
- 4.2 – Referred to a normal desktop database in stead of a server Database.
- 4.3.1 – Physical integrity was asked and answers were given on software integrity or validation.
- 4.3.2 – Struggled to answer transaction processing integrity.

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

- It seems that teaching focus for this section of the paper is condensed on SQL. Take note in the CAPS of the wide range of information learners should know regarding this section.
- Focus more on the layout, terminology and creation of a Database.
- SQL – look into the different use of AND and OR operators in the WHERE clause.

(d) Describe any other specific observations relating to responses of learners

- Tables are given. Use them to answer questions asked on them.

QUESTION 5.

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

- The average on question 5 is 51.2 %.

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

- 5.1.1 – Terminology of the practical theory lack in the answers.
- 5.1.2 – Learners answered this question poorly. Only a few learners got this one correct.
- 5.2 – Problem solving well answered, but need to focus more on pseudo code content.
- 5.3.1 – The fact that a header for the lines of the coding isn't given, confused learners to write one line at a time in the trace table. Teach them to add coding lines even if it isn't given.
- 5.4.1 – Learners confuse the terms conditional and unconditional loops.
- 5.4.2 Learners answered question poorly – misunderstood the question.

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

- A lot of exercises should be done on this section. Learners aren't use to answer practical questions theoretically.
- Make use of old question papers to let the learners practice the way questions are asked.
- When teaching practical – emphasis the correct terminology.
- The structure of pseudo code should be introduced in grade 10, but continuously taught till grade 12.
- Trace tables should be taught as part of the learning process for the practical. This is a very helpful tool for learners to either understand sections of coding or to find logical errors in their coding.
- When teaching Loops, explain the difference between conditional and unconditional loops.

(d) Describe any other specific observations relating to responses of learners

- 5.4.2 was misunderstood.

QUESTION 6.

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

- The average on question 6 is 63.8 %.

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

- 6.1 – Fairly well answered. Most learners understood dynamic web.
- 6.1.4(b) - Dynamic component – the learners struggled to explain how the component will be dynamically created. Only mentioned it will make the GUI look more professional.
- 6.2 – Only stated extensions differ instead of giving an example of extensions.
- 6.2.2 – Cellular Technologies include 3G, 4G and LTE, so learners could not get two marks for only using those as examples and had to add WI-MAX or satellite.
- 6.4.1 – very poorly answered
- 6.4.3 – Avoid using the ‘Terms and Condition’ phrase when answering the EULA question.
- 6.5 – Power saving methods should refer to Desktop computers and not cellphone technology.
- 6.6 – Poorly answered.
- 6.7.1 – Never referred to an electronic card or a card with a chip. It is not the same as RFID.

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

- This question is on everyday use of technology. Stay up to date with the latest trends.
- Make use of YouTube to bring topics to life for the learners.

(d) Describe any other specific observations relating to responses of learners

- This question is not difficult, but it seems that the learners get tired and focus less when starting this question. There are more than enough time to answer the question well and do well in it. Learners should not race to finish the paper, but rather focus and read the questions carefully to interpret it correctly and accurately.
- Learners are living in their own small world where their cellphones are their everything. They are prone to compare all technologies and answers to their cellphones instead of the use of computers in the working environment.

OTHER REMARKS:

- It is very important that the question paper is distributed to the learners in BOTH Afrikaans and English. We didn't mark one paper answered in Afrikaans although many of the centers are registered as Afrikaans. It is extremely difficult for the Afrikaans learners to answer without an English paper as they are taught in English and their textbooks are in English. Only enough papers per learner registered in a specific language were distributed.
- Learners should leave a line open after every sub-question. It aids the marking process.
- Draw a definite line after each question OR start each question on a new page.

Adette Bos

06/12/2015

NAME OF THE CHIEF MARKER:

SIGNATURE

DATE