Province of the
EASTERN CAPE
EDUCATION

EXAMINATIONS AND ASSESSMENT CHIEF DIRECTORATE
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NSC 2018 CHIEF MARKER'S REPORT

SUBJECT:	INFORMATION TECHNOLOGY
PAPER:	TWO (2)
DURATION OF PAPER:	3 **HOURS**
DATES OF MARKING:	**01/12/2018 – 11/12/2018**

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

A total number of 265 candidates sat for the National Senior Certificate exam in Information Technology. This report is based on the raw marks obtained at the marking centre. It takes into consideration the responses by all the candidates.

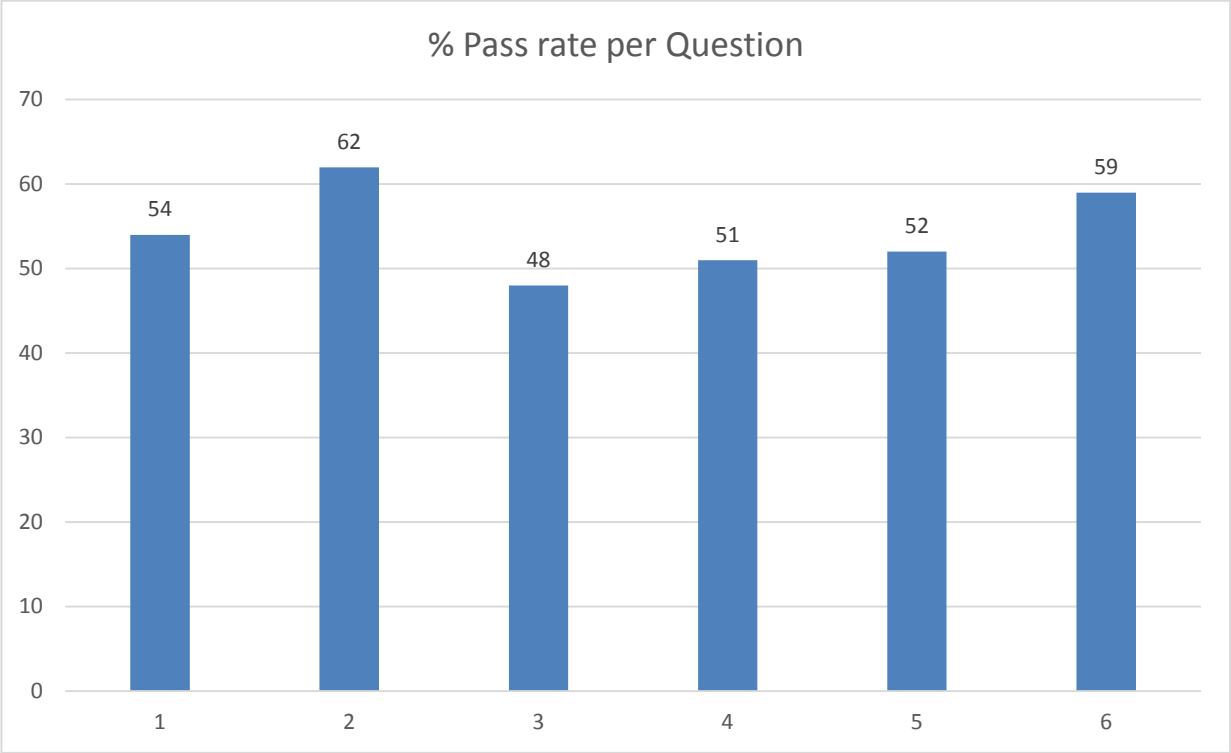
The average pass rate for the paper was 86.8% for all the learners, (i.e) those who got 30% and above.

The paper was made up of the 6 sections according to the CAPS requirements.

The hardest question was question 3 and the most passed was question 2

Average mark from all the learners	**54%**
QUESTION	**TOPIC OR ASPECT TESTED**	**AVERAGE % FROM SAMPLE**
1	Short Questions	54
2	Systems Technologies	62
3	Communication and Networking Technologies	48
4	Data and Information Management	51
5	Solution Development	52
6	Integrated Scenario	59

Question	1	2	3	4	5	6	Average
% Pass	54	62	48	51	52	59	54

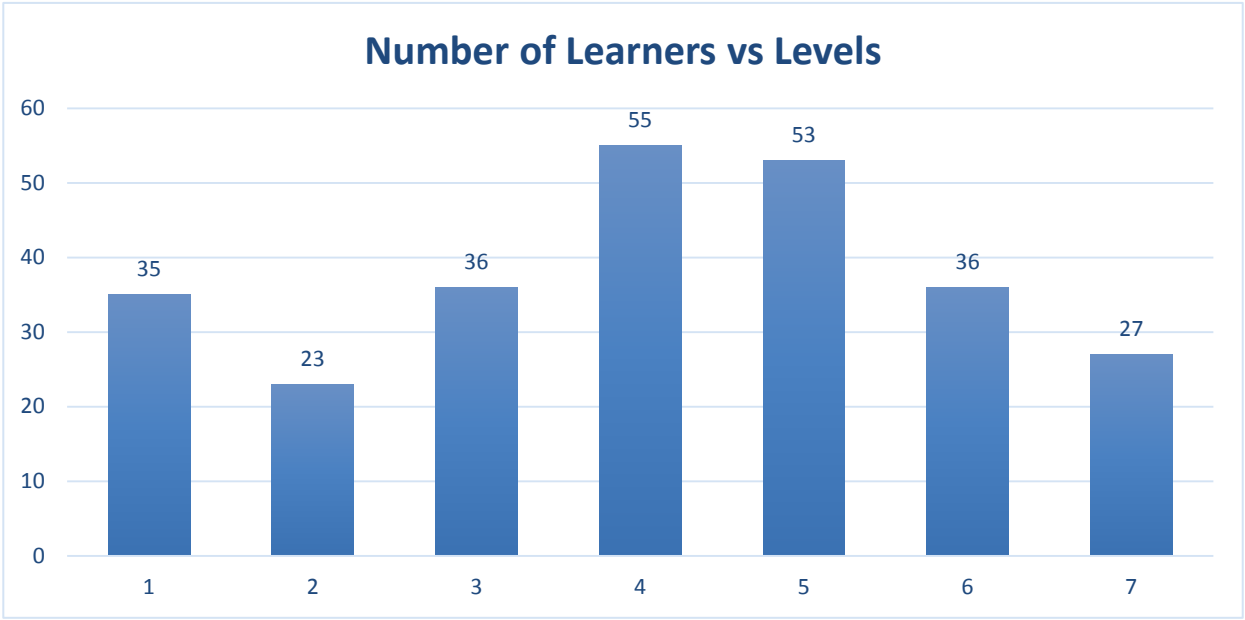


The general performance of the Learners in the question paper has been very fair compared to the few previous years. There has been a sharp increase of 6% this year compared to 2017 which was 48%.

This is very worrying considering the fact that our analysis of the paper's content shows that it met the basic CAPS standards of a good paper. A good number of the questions tested remembering and understanding skills, and many of the questions were also quite similar to those in the past papers. There has been a great increase in the number of distinctions (27 Learners compared to 2017 which was 12 learners) and a decrease in the

number of Level 1s (35 learners compared to 2017 which was 49 learners).

Levels	1	2	3	4	5	6	7	Total
No. of Learners	35	23	36	55	53	36	27	265



SECTION 2: Comment on candidates' performance in individual questions
(It is expected that a comment will be provided for each question on a separate sheet).

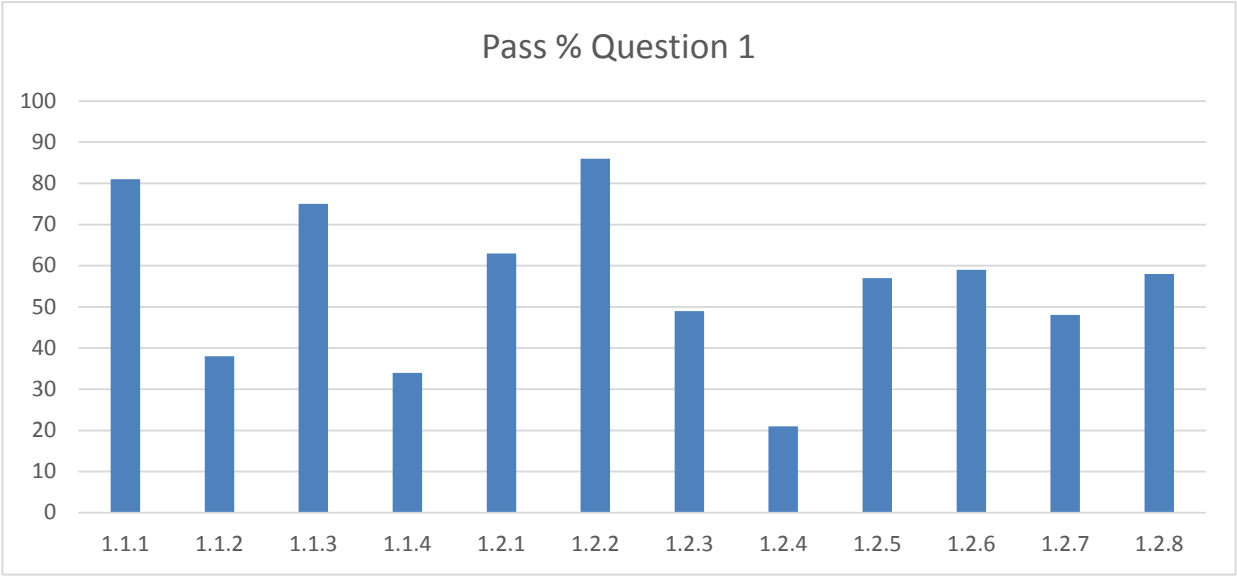
QUESTION 1

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

Average %: 56%

- There is an improvement of 2%. 2017 average percentage was 54%.

QUESTION 1													
Question	1.1.1	1.1.2	1.1.3	1.1.4	1.2.1	1.2.2	1.2.3	1.2.4	1.2.5	1.2.6	1.2.7	1.2.8	Average %
1	81	38	75	34	63	86	49	21	57	59	48	58	56



Question 1.2.4 (21%) is the worst answered question followed by 1.1.4, 1.1.2, 1.2.7 & 1.2.3 which are less than 50%.

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

Most of the learners gave the more general term other than specific terms to the required answer. One word answers need specificity. Examples of answers given: 1.2.4 House keeping software/Maintenance software/ Operating System 1.1.4 Learners used BODMAS instead of BOMDAS mathematical sequence to get the solution/answer. 1.1.2 Learners selected option D confusing Freeware with Shareware

(c) Provide suggestions for improvement in relation to Teaching and Learning.
Learners should be encouraged to explore a bit more on terminologies the curriculum as it is one of the requirements. Learners must learn the explanation of these terminologies under Glossary at the end of each chapter.
(d) Describe any other specific observations relating to responses of learners.
Learners must write the correct terminology. They must not use their own terms like House keeping/ Maintenance software (instead of Utility Software) which are not Information Technology terms.
(e) Any other comments useful to teachers, subject advisors, teacher development etc.
Learners should be encouraged to learn as many definitions and terminology of the subject as possible. Teachers should regularly test learners on important concepts for them to grasp the concepts.

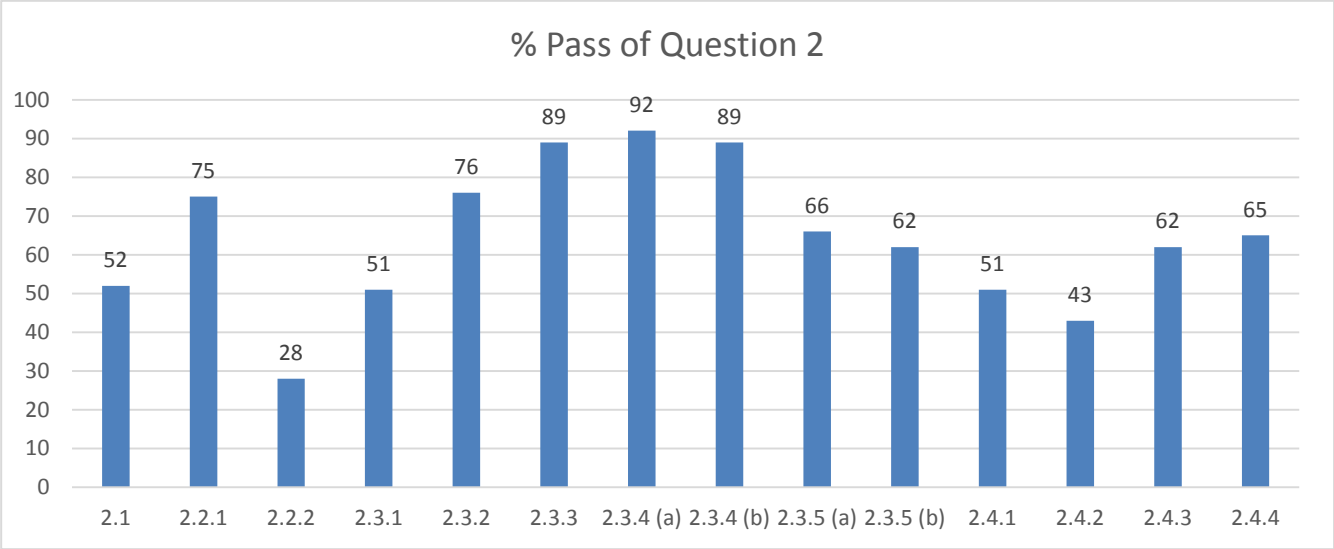
QUESTION 2 SYSTEM TECHNOLOGIES

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

Average Mark: 64%

- Learners have improved by 10%. 2017 average score was 54%.

QUESTION 2															
Question	**2.1**	**2.2.1**	**2.2.2**	**2.3.1**	**2.3.2**	**2.3.3**	**2.3.4 (a)**	**2.3.4 (b)**	**2.3.5 (a)**	**2.3.5 (b)**	**2.4.1**	**2.4.2**	**2.4.3**	**2.4.4**	**Average %**
% Pass	52	75	28	51	76	89	92	89	66	62	51	43	62	65	64



Fairly answered except for question 2.2.2 (28%). Learners were unable to give clear answer the question. learners talk about defragmentation and compressing. They do not know the system tools.

(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.
Learners do not know the system tools. They confuse it with defragmentation and compression.
(c) Provide suggestions for improvement in relation to Teaching and Learning.
The functions of all different system tools must be taught to learners and practical examples must be given. The teacher must do practical work with learners showing them how the system tools work in class.
(d) Describe any other specific observations relating to responses of learners.
Learners must use the System Tools to maintain computers and this will assist them to know the purpose of each system tool.
(e) Any other comments useful to teachers, subject advisors, teacher development etc.
Teachers are encouraged to teach System Management concepts in conjunction with the System Software

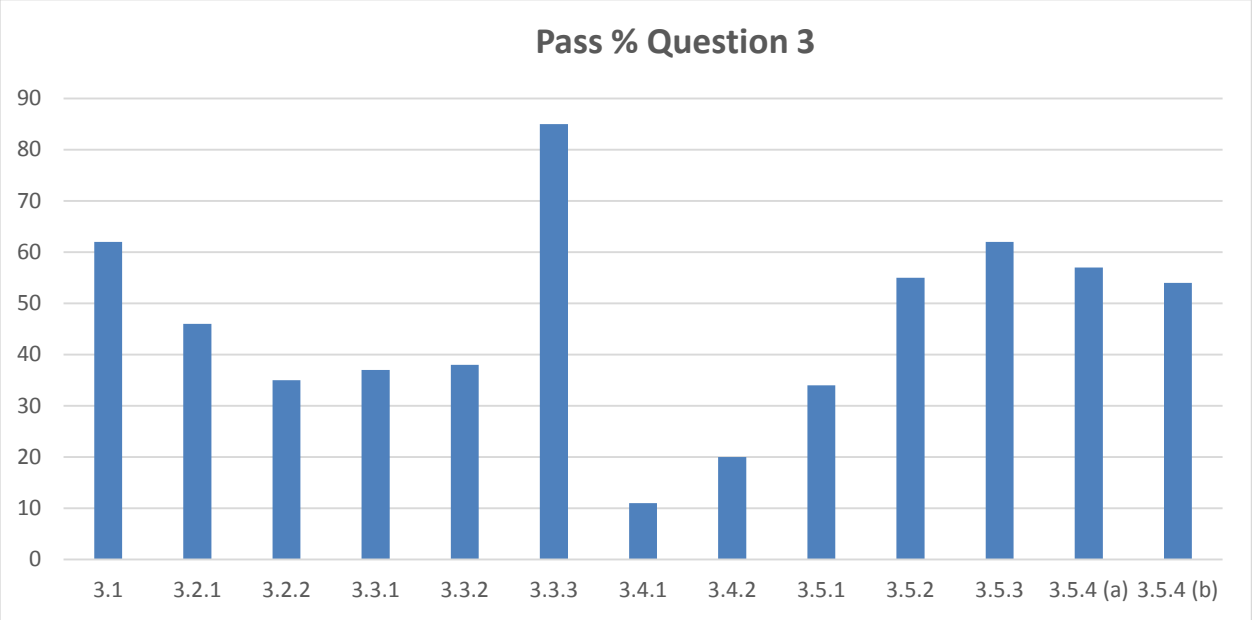
QUESTION 3: COMMUNICATION AND NETWORK TECHNOLOGIES

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

Average %: 46%

- There is only 1% improvement in this question as compared to 2017 which was 45%.

QUESTION 3														
% Pass	**3.1**	**3.2.1**	**3.2.2**	**3.3.1**	**3.3.2**	**3.3.3**	**3.4.1**	**3.4.2**	**3.5.1**	**3.5.2**	**3.5.3**	**3.5.4 (a)**	**3.5.4 (b)**	**Average %**
	62	46	35	37	38	85	11	20	34	55	62	57	54	**46**



The worst answered question was 3.4.1 which has attained a score of 11%, followed by 3.4.2 which also attained 20%.

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

Poorly Answered Questions:

3.4.1 Explain what is meant by Semantic Web

3.4.2 What is the purpose of metadata in the Semantic Web

3.5.1 Protocol used to download e-mail

(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.
3.4.1. Semantic web is new concept, most learners answered and described the responsive web. They confused one for the other. The marking guideline did not have an option to accept this definition. Responsiveness is one of the characteristics of the Semantic Web. 3.4.2 If the learners got the definition of semantic Web wrong, then this question was also wrong. 3.5.1 Learners were not able to distinguish between SMTP and IP protocols because. The most common wrong answer was SMTP
(c) Provide suggestions for improvement in relation to Teaching and Learning.
Teachers are encouraged to teach these new technologies, our subject is a new subject and changes are happening every day. Hence the need to dwell on these new concepts. The fact that learners could not identify, or remember the protocol used for downloading email, this content is taught in grade 11 therefore it's a possibility that learners did not go back to it.

(d) Describe any other specific observations relating to responses of learners.
Learners still do not understand Internet Technologies very well. This section needs to be taught effectively in class.
(e) Any other comments useful to teachers, subject advisors, teacher development etc.
Learners did not have understanding of Web 3 concepts which indicates that there is less time spent in class teaching concepts. More attention should be given to this topic in classroom activities.

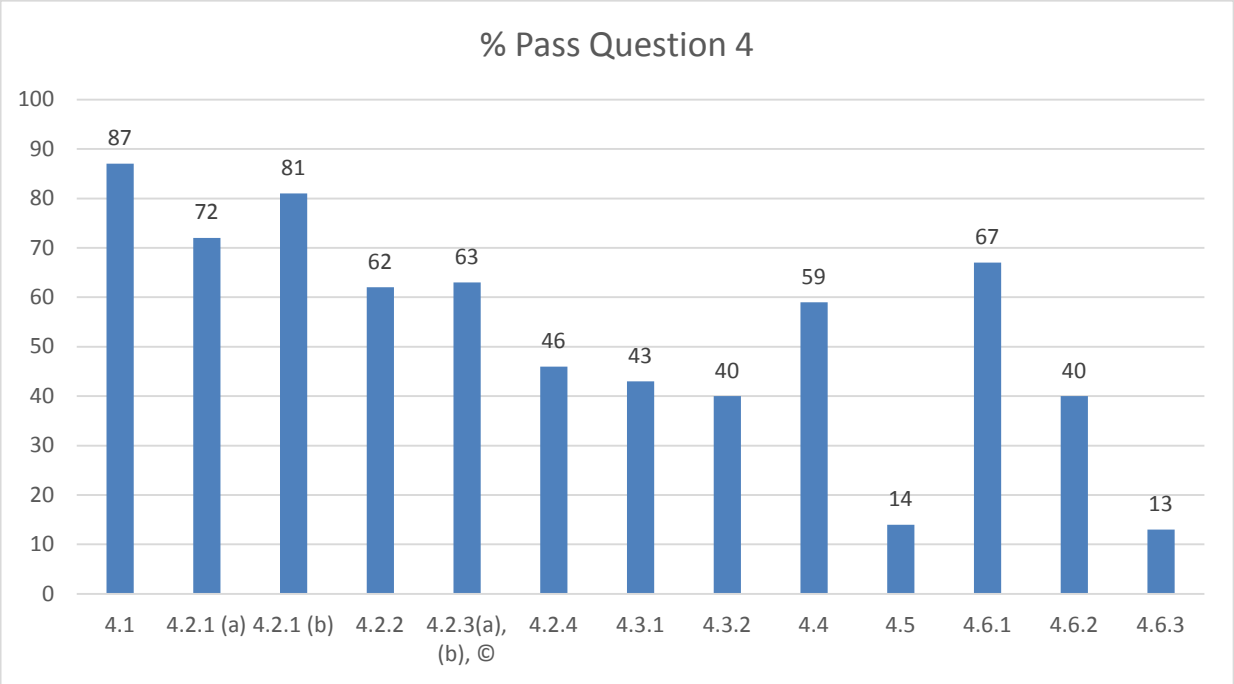
QUESTION 4: DATA AND INFORMATION MANAGEMENT

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

Average %: 53%

- There is an improvement of 9% compared 2017 (in 2017 the average performance was 44%)

QUESTION 4															
Question	**4.1**	**4.2.1 (a)**	**4.2.1 (b)**	**4.2.2**	**4.2.3(a), (b), ©**	**4.2.4**	**4.3.1**	**4.3.2**	**4.4**	**4.5**	**4.6.1**	**4.6.2**	**4.6.3**	**Total Q4**	**Average %**
% Pass	87	72	81	62	63	46	43	40	59	14	67	40	13	51	53



Question 4 was well answered except the following most poorly answered sub questions:

- 4.5 State TWO benefits of having DBMS installed on a server.
- 4.6.3 Explain how data synchronisation is done when using a partitioning model in a distributed database.

(b) **Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.**
• 4.5 Most learners answered this question by giving the general advantages of having a Network and generally a Server, there was need for them to zero in on the actual benefits of a DBMS • 4.6.3 The concept of synchronisation in the partitioning model was not completely understood by the learners. Most of them made reference to the automatic synchronisation that happens in the background in systems such as windows. • 4.2.4 ERD diagram. Learners designed an Access Relationship diagram instead of ER diagram which shows a Crow Foot relationship

(c) Provide suggestions for improvement in relation to Teaching and Learning.
• The general impression is that teachers are giving more attention to this topic, which is encouraging. However, a lot more still needs to be done when it comes to systems that are large, like a DBMS that is not usually implemented on a school system for the learners to have practical experience with it.

(d) Describe any other specific observations relating to responses of learners.
• It is encouraged that teachers attempt practical setup of a DBMS together with learners for them to understand the concepts that are involved including those covered here.

(e) Any other comments useful to teachers, subject advisors, teacher development etc.
It is encouraged that teachers attempt practical setup of a DBMS together with learners for them to understand the concepts that are involved including those covered here.

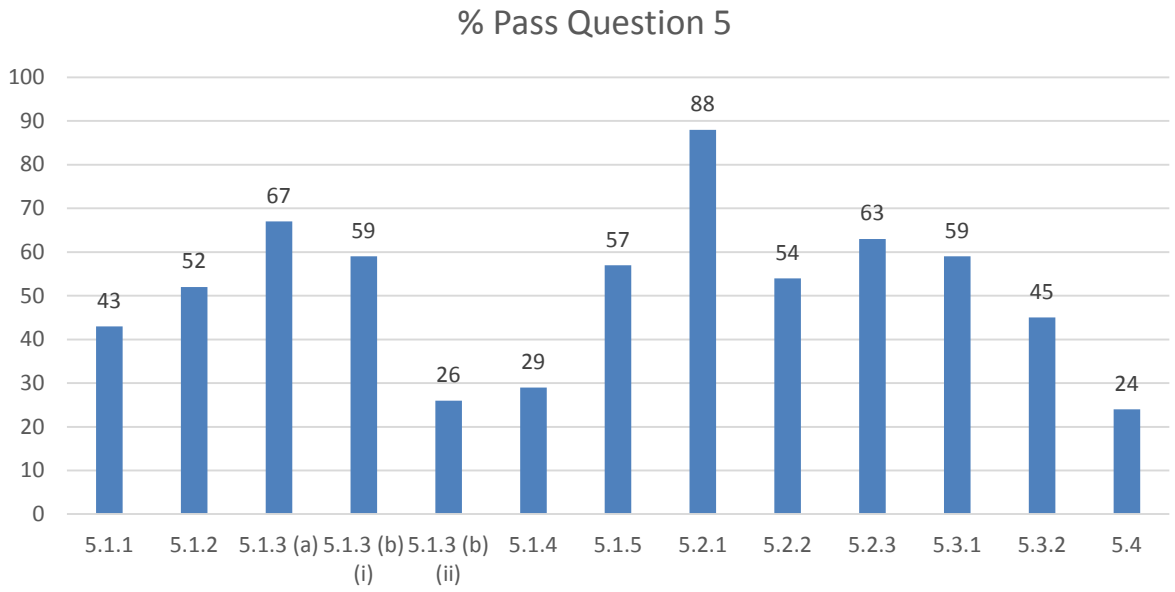
QUESTION 5: SOLUTION DEVELOPMENT

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

Average %: 51%

- **There was a decrease 0f 1% compared to 52 percent in 2017**

QUESTION 5														
Question	**5.1.1**	**5.1.2**	**5.1.3 (a)**	**5.1.3 (b) (i)**	**5.1.3 (b) (ii)**	**5.1.4**	**5.1.5**	**5.2.1**	**5.2.2**	**5.2.3**	**5.3.1**	**5.3.2**	**5.4**	**Average %**
% Pass	43	52	67	59	26	29	57	88	54	63	59	45	24	51



This question was well done except for question

- 5.1.3 b(ii) an example of what leads to a runtime error
- 5.1.4 Differences between the While and the Repeat Loops
- 5,4 An algorithm which easily confused the learners
- Trace table was done better. Confusion of lines and corresponding values and adding excess data.

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

- The learners gave any error that came to their mind as a runtime, furthermore, question 5.2.3 shows an example of an error. They messed up the concepts because they did not really understand the required concepts.
- 5.1.4 Like question 3.1.2, the learners describe one concept about each statement. They however assumed that they were two different statements.
- 5.4 The fact that the algorithm had two already given lines upset the thinking of the learners. The line 2 was put to confuse the learners and it did just that

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

- These concepts are dealt with in the practical programming and are often overlooked because learners encounter them every day when they program. A thorough differentiation needs to be done.
- Learners need to practice more on the Delphi programming concepts by doing as many exercises as possible. Only when they interact with the practical concepts, including writing algorithms will they be able to do such problems. The concept of planning and strategizing comes into place here.
- Learners also need training on how to answer questions where they are asked to compare two concepts. They should not just mention the opposing characteristic on the other because it is not a new point.

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

- More practice where learners are given questions to compare two or more concepts, needs to be done. Give Learners as much practical activities as possible.

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

- The concepts of programming need to be taught theoretically. There is a direct relationship to their practical performance, Teachers should not allow learners to program without making at least a pseudo code for that section of the program.

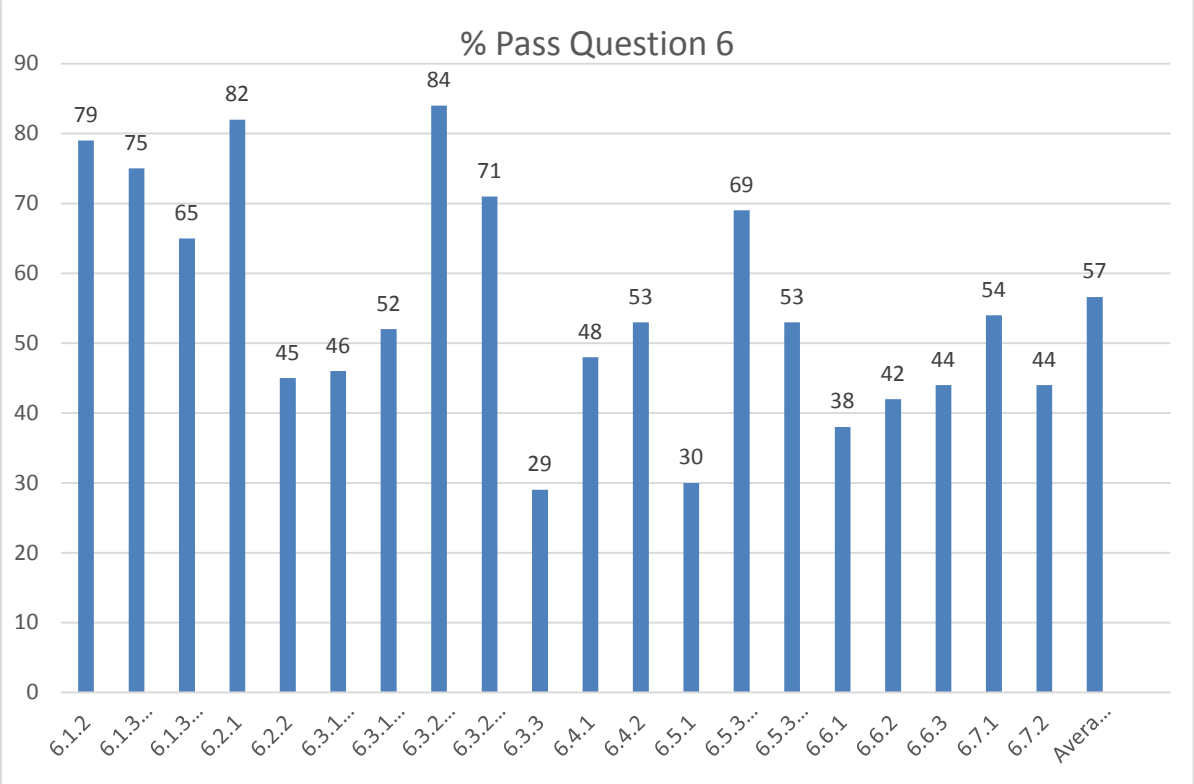
QUESTION 6

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

Average %: 57%

- **There is an improvement of 12% compared to 2017. The average in 2017 was 45%.**

QUESTION 6																					
	6.1.1	6.1.2	6.1.3 (a)	6.1.3 (b)	6.2.1	6.2.2	6.3.1 (a)	6.3.1 (b)	6.3.2 (a)	6.3.2 (b)	6.3.3	6.4.1	6.4.2	6.5.1	6.5.3 (a)	6.5.3 (b)	6.6.1	6.6.2	6.6.3	6.7.1	6.7.2	Average %
% Pass	86	79	75	65	82	45	46	52	84	71	29	48	53	30	69	53	38	42	44	54	44	57



The poorly answered questions in this section are

- 6.3.3 – techniques used to place website as high as possible on a list of search results.
- 6.5.1 – Concept of a connected app.

(b) Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.
• 6.3.3 Learners either mixed the letters of the acronym or left the answer blank. Last year the question was asked with the word engine in it and it gave a clue to the learners. Learners must not write acronyms because they tend to switch them (e.g. SOE instead of SEO). They must write the acronyms in full. • 6.5.1 Most learners described an app, and did not consider the connectedness of the app. Learners are mostly talking of apps, they do not really consider the connectedness of it. Those who got this question right only mentioned one concept, that it is connected to the internet but did not bring the idea of the server in the picture.
(c) Provide suggestions for improvement in relation to Teaching and Learning
• More attention needs to be given to the thorough teaching of the definitions. Both these questions are routed on the definitions of the concepts. Misunderstandings of the questions requirements also contributed to the poor performance.
(d) Describe any other specific observations relating to responses of learners
• It is evident from the learner's answers that they must be encouraged to search the deeper meanings behind the concepts, and also not rely only on the short summarised definitions at the back of chapters. • Activities where learners are asked to question the validity of definitions given should be encouraged in class.
(e) Any other comments useful to teachers, subject advisors, teacher development etc.
• Teachers need to try and stay informed about the latest technologies. • The learners know a lot about new technologies and should be given the opportunity to share their knowledge in class.

MNCEDI SAPHO		11/12/2018
NAME OF CHIEF MARKER	**SIGNATURE**	**DATE**