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**QUALITATIVE ANALYSIS OF LEARNER RESPONSES AND EVALUATION OF QUESTION PAPERS: NSC 2021**

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| **REPORT 1: EVALUATION OF THE QUESTION PAPER AND MARKING GUIDELINE** |

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| **SUBJECT** | **COMPUTER APPLICATIONS TECHNOLOGY** |
| **PAPER** | **2** |
| **DURATION OF PAPER:** | **3 HOURS** |

**REPORT FORMAT**

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

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| The 2021 Computer Application Technology Paper 2 attempted to offer something from across the CAT syllabi from Grade 10 to Grade 12. It represented a good balance between the ‘elementary’ basic concepts, to the more demanding interpretation and analysis of technology information. In some instances, the paper also required a lot of experience and exposure to the world of computers as well as a lot of application. The content is sometimes being embedded in real life scenarios and therefore some of the students struggle to identify with it.  Many educators as well as candidates rated the paper as being fair and appropriate, but not easy. The learners did not know how to interpret some of the questions and therefore only answered the questions in general.  It is generally accepted that CAT has evolved into a more analytical and technical subject and success in the subject is dependent on hard work, thorough preparation and dedication.  Many candidates still lack the skills and knowledge required to answer even the easy questions. Students from more affluent, technology inclined households would have had an advantage but not the rest. The Covid-19 pandemic has affected educational systems worldwide and the impact was more severe for disadvantaged children, causing interrupted learning and the lack of student to teacher interaction has also led students to feel less passionate about the integrity of their work.  Therefore, there will be a widespread of candidates that will perform well, average as well as very poorly.  Once again, a large percentage of the learners in the Eastern Cape failed to achieve 40%. **This year most of the learners failed to achieve even 30%**. This is extremely worrying. They have as usual achieved much lower marks in Paper 2 than in Paper 1. This is clearly an indication of the level of preparation and commitment to the task. It is often claimed that the diverse socio-economic background and the availability of resources play a significant role in the NSC results. It is time that individuals take responsibility for their success by going the extra mile.  The graph below shows the overall performance of the learners in the Eastern Cape.  As can be seen from the graph below, 61.3% of learners in the Eastern Cape passed this examination (2020) compared to 58.1% last year (2019) and 60.9% in (2018).    This year only 47.4% passed the exam.  All the other graphs in this report were created from data attained by entering the results of 100 random sample scripts. Please note that this does not reflect the most accurate picture as it is very difficult to extract a sample of 100 scripts which would be 100% representative of the performance of the Eastern Cape.  More learners completed the question paper this year and not many questions were left undone. There are still too many learners that lack the skills and knowledge required to answer even the easy questions.  More textbook content must be included in the theory question paper. These may be higher level questions. Some questions come over as being too technical for CAT. Therefore, markers also need to be trained to be more divergent in their thinking and award marks to comments that go beyond the marking guideline.  It will also be to the advantage of the learners if they can receive both the English and Afrikaans versions of the paper.  As mentioned earlier, learners are still performing better in the practical paper than in the theory paper.   * The obvious reason for this is the language barrier of candidates. Learners do not always understand and interpret the questions correctly and if they do, they do not have the vocabulary to express themselves correctly. This results in responses from learners that is very difficult to read and to understand. Although everything in our power is done to accommodate the language barrier of learners and even that of many teachers who teach in their second language, there is only so much that can be done. Teachers and learners should do everything in their power to improve their English language. * Teachers do not spend enough teaching time on preparing learners for the theory paper and that some learners do not study for CAT theory. Teachers and learners must realise that theory is just as an important component in the CAT syllabus and that it contributes the same weight in the overall mark for CAT.   Because the suggestions for improving teaching and learning (Section C) as well as the useful comments to teachers (Section E) are very much the same for all the different questions, I will discuss them generally at the beginning of the report and then just refer to it in the discussion of the different questions.  **GENERAL COMMENTS ON IMPROVING THE TEACHING AND LEARNING OF CAT THEORY**   * **More time and effort should be spent on teaching theory by following the instructions in the CAPS document as well as the exam guideline.** Teachers should explain the theory and make sure that learners understand what they are learning. Teachers should teach theory in a practical way. Bring examples of technology and demonstrate how it works. **Research should be done on new concepts and new technology evolving**. * **CAT is a very dynamic subject**. Teachers must therefore make a concerted effort to keep up with this new technology and bring their learners into contact with new technologies on a regular basis. Teachers will be informed once a year on new technology that may be assessed in addition to the existing content of the CAPS syllabus. This will be added to the examination guideline document which will be released once a year. * **Learners can also be challenged to come and share new technologies** which they came across in class. This can also be done as part of a homework or class activity. Encourage learners to browse for new technology on the Internet or find advertisements in local media. They can bring these to school where they can be discussed in class. Teachers can also make use of experts in the field of technology to come and explain and demonstrate some of the latest technologies to learners. * **Teachers are advised to consult more than one textbook when teaching theory** **as well as to make sure that they know the content of the CAPS document and what is required from CAPS.** There are three approved textbooks available for CAT. Books approach topics from different angles and can even have additional information on topics. It can only be to learner’s advantage to consult more than one textbook. * **Learners should also be given regular theory tests** – based on the format of examination papers. The results of these tests (learner’s responses) should be discussed with them – not just be handed back. They should know why they lost marks. * Although time is limited, teachers should try and **work through some question papers of previous years**. The memos of these papers should be discussed with learners to train them how to approach and answer a question paper as well as learning the content. * Teachers should **teach learners to use the correct terminology** in class as well as when answering questions. They should not be allowed to answer questions by using words such as *it,* *things … etc.* * **Grades 10 and 11 content**: Teachers are reminded that according to the CAPS syllabus, learners are assessed on all theory done from grade 10 – 12 in the final examination. Learners should therefore keep summaries of their gr 10 and 11 theory in notebooks. Throughout the grade 12 year, teachers should incorporate grade 10 and 11 knowledge in tests to prepare learners for the final examination.   **NOTE TO SUBJECT ADVISORS:**   * CAT is still a new and very dynamic subject. Many teachers do not have the training or support to continually provide quality education to learners. Subject advisors should play a more active role in assisting teachers in gaining the needed knowledge and expertise. Subject advisors should also make sure that all schools receive the new and updated examination guidelines as well as new terminology for the New Year and make sure they use these documents in their teaching. Short training courses presented by themselves, or other specialist teachers can only benefit this valuable subject. * There are also schools who do not have the necessary hardware, software and Internet access to offer this subject. We would also appeal to the department and subject advisors to play a supportive role in this regard – especially in schools where there are trained teachers available. |
| **MISTAKES MADE BY LEARNERS IN ANSWERING THE PAPER:**  The following mistakes were experienced, and we appeal to teachers to please discuss this with their learners.   * **Learners giving one-word answers**. It often happens that learners respond with only one word to a question to list advantages/disadvantages/ characteristics. It is impossible for markers to judge from that whether the learner knows the work. No marks will be awarded in such cases. Other learners again, write paragraphs instead of sentences – often contradicting their answer. This must also be discouraged. * **Vague and generic answers**. Some learners, when they do not really know the answer, often fall back on vague and generic answers such as “it is easier and faster” and terms like “things” and “stuff” etc. Answers like these which do not include any motivation, reason or an explanation or the correct terminology which can be used to judge a learner’s comprehension will not earn any marks and should be discouraged. This statement is clearly outlined in the instructions and information at the beginning of the question paper (instruction number 10). * **Learners do not read the questions/scenarios/instructions properly**. They read until they think they know the answers, or they only notice some keywords and then they assume the rest of the question. Learners should be encouraged to read the whole question slowly and with comprehension before attempting to answer it. In many scripts it is clear that learners are losing marks because they do not read the questions properly. A lot of students tend to re-write the question as their answer. This is completely unacceptable. Learners should also be encouraged to read the instructions at the beginning of the question paper. * **Mark allocation.** Teachers should indicate to learners that the paper is marked on a “one mark per fact” basis. Thus, if a question is indicated to count two marks, they need to write down two facts. * **Handwriting**. As with all subjects, handwriting is a problem with many candidates where markers have difficulty deciphering the handwriting in order to mark the script. * **Answering of questions**. * Start each new question on a new page. * Leave a line open between questions. * Answer the questions in the order they appear on the question paper. * Keep sub-sections of a question together. * Use the numbering system as indicated on the question paper for each question. * If learners decide not to attempt a sub-question of a question, they must at least write the number of the question so that markers can clearly see that a question has been left out. It makes it very difficult for markers who mark under a lot of pressure to lose time in an attempt to look for the correct answers. * **Some of the learners did not adhere to the instructions in the question paper. According to the instruction’s learners are not allowed to just write: “cheaper”, “faster”, “easier”, etc.** |

**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).**

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| **QUESTION 1** |
| 1. **General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?** |
| |  |  |  |  | | --- | --- | --- | --- | | ***Average mark from the sample of 100*** : | | **5/10** | | | **SUB-QUESTION** | **TOPIC OR ASPECT TESTED** | | **AVERAGE % FROM SAMPLE** | | 1.1 – 1.10 | MATCHING ITEMS | | 65% |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Question number** | **1.1** | **1.2** | **1.3** | **1.4** | **1.5** | **1.6** | **1.7** | **1.8** | **1.9** | **1.10** | **Total** | | **Question Value** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **10** | | **Maximum** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | | **Minimum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | **Average** | **83%** | **83%** | **81%** | **14%** | **51%** | **85%** | **50%** | **77%** | **48%** | **73%** | **65%** | | **Median** | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 7 |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Distribution of  marks | **1.1** | **1.2** | **1.3** | **1.4** | **1.5** | **1.6** | **1.7** | **1.8** | **1.9** | **1.10** | | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | | 0 | 17 | 17 | 19 | 86 | 49 | 15 | 50 | 23 | 52 | 27 | | 1 | 83 | 83 | 81 | 14 | 51 | 85 | 50 | 77 | 48 | 73 |   The performance of learners in this question was very good. |
| 1. **Why the question was poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.** |
| Questions were quite straight forward for those who prepared well for the examination.  The following questions were poorly answered by the majority of learners. Teachers should take note and act accordingly:  **Q 1.4**  Practical question. Learners don’t know Excel functions and definitions and functionality of the different functions must be taught to the learners. |

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| 1. **Provide suggestions for improvement in relation to Teaching and Learning** |
| Learners should be taught to arrive at an answer adopting a process of elimination. Selecting the most probable answers and then removing them one by one.  Also refer to the general comments in Section 1 of this report for more comments and suggestions which could help teacher developments as well as advantage our learners. |

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| **(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.** |
| Many learners continue not to answer some of the questions which is quite surprising, or they tend to write down two options (A/B) as if the marker will choose between the 2 answers. Although this question is not a guessing game, learners should be encouraged to at least try an answer out of the options left. I would like to appeal to teachers to teach their learners to answer this question using the answer sheet provided. |

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| **QUESTION 2** |
| 1. **General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?** |
| |  |  |  |  | | --- | --- | --- | --- | | ***Average mark from the sample of 100***: | | **6.8/10** | | | **SUB-QUESTION** | **TOPIC OR ASPECT TESTED** | | **AVERAGE % FROM SAMPLE** | | 2.1 – 2.10 | MATCHING ITEMS | | 71% |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Question number** | **2.1** | **2.2** | **2.3** | **2.4** | **2.5** | **2.6** | **2.7** | **2.8** | **2.9** | **2.10** | **Total** | | **Question Value** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **10** | | **Maximum** | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | | **Minimum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | **Average** | **61%** | **83%** | **94%** | **89%** | **74%** | **46%** | **60%** | **50%** | **62%** | **87%** | **71%** | | **Median** | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 7 |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Distribution of  marks | **2.1** | **2.2** | **2.3** | **2.4** | **2.5** | **2.6** | **2.7** | **2.8** | **2.9** | **2.10** | | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | | 0 | 39 | 17 | 6 | 11 | 26 | 54 | 40 | 50 | 38 | 13 | | 1 | 61 | 83 | 94 | 89 | 74 | 46 | 60 | 50 | 62 | 87 |   The performance of learners in this question was good. Some of the learners even obtained full marks for this question. |

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| 1. **Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.** |
| Questions were quite straight forward for those who prepared well for the examination.  Question 2.6 was the only question that was answered poorly in comparison with the rest. The reason therefore is that students don’t know the term artificial intelligence.  This term is in the new exam guideline. |

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| 1. **Provide suggestions for improvement in relation to Teaching and Learning** |
| Learners should be taught to arrive at an answer adopting a process of elimination. Selecting the most probable answers and then removing them one by one. |

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| **(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.** |
| Many learners continue not to answer some of the questions which is quite surprising, or they tend to write down two options (A/B) as if the marker will choose between the 2 answers. Although this question is not a guessing game, learners should be encouraged to at least try an answer out of the options left. I would like to appeal to teachers to teach their learners to answer this question using the answer sheet provided. |

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| **QUESTION 3** |
| 1. **General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?** |
| |  |  |  |  | | --- | --- | --- | --- | | ***Average mark from the sample of 100*** : | | **2.75/5** | | | **SUB-QUESTION** | **TOPIC OR ASPECT TESTED** | | **AVERAGE % FROM SAMPLE** | | 3.1 – 3.5 | TRUE/FALSE ITEMS | | 46% |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **Question number** | **3.1** | **3.2** | **3.3** | **3.4** | **3.5** | **Total** | | **Question Value** | **1** | **1** | **1** | **1** | **1** | **5** | | **Maximum** | 1 | 1 | 1 | 1 | 1 | 5 | | **Minimum** | 0 | 0 | 0 | 0 | 0 | 1 | | **Average** | **8%** | **94%** | **19%** | **10%** | **97%** | **46%** | | **Median** | 0 | 1 | 0 | 0 | 1 | 2 |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Distribution of  marks | **3.1** | **3.2** | **3.3** | **3.4** | **3.5** | | **1** | **1** | **1** | **1** | **1** | | 0 | 92 | 6 | 81 | 90 | 3 | | 1 | 8 | 94 | 19 | 10 | 97 |   The performance of learners in this question varied from good to very poor. |

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| 1. **Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.** |
| Learners still battled with this question this year.  Learners are still not used to a question of this format where they had to identify whether a statement is true or false AND then make the false statements true by changing the underlined concept/term.  The question was thus misunderstood by many learners. Some of the learners changed the statement to make the underlined word true instead of changing the word to make the statement on the question paper true. Some learners only write false without the correct word next to it.  I believe that with some input by teachers, the learners can do much better in this question in the future.  Question 3.2 and 3.5 were poorly answered by most learners – learners don’t learn Grade 10 and 11 work. |

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| 1. **Provide suggestions for improvement in relation to Teaching and Learning** |
| Teachers should train the learners to answer question of this format by explaining to them how to attempt a question of this nature. They should then also expose learners to questions of this type in class tests and examination during the year. Practice from old question papers as well. |

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| **(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.** |
| This type of question might seem very easy, but to successfully answer a question of this format, learners should be taught to read the statements a few times with concentration and understanding.  Teachers should pay attention to this during the year. This is something that learners should be taught and exposed to. |

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| **QUESTION 4** |
| 1. **General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?** |
| |  |  |  |  | | --- | --- | --- | --- | | ***Average mark from the sample of 100***: | | **9.8/25** | | | **SUB-QUESTION** | **TOPIC OR ASPECT TESTED** | | **AVERAGE % FROM SAMPLE** | | 4.1 – 4.12 | SYSTEMS TECHNOLOGIES | | 33% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Question number** | **4.1** | **4.2** | **4.3** | **4.4.1** | **4.4.2** | **4.5** | **4.6** | **4.7.1** | **4.7.2** | **4.8** | **4.9** | **4.1** | **4.11** | **4.12.1** | **4.12.2** | **Total** | | **Question Value** | **1** | **2** | **2** | **2** | **1** | **1** | **2** | **2** | **1** | **2** | **2** | **2** | **2** | **2** | **1** | **25** | | **Maximum** | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 19 | | **Minimum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | **Average** | **62%** | **25%** | **23%** | **24%** | **28%** | **22%** | **51%** | **36%** | **32%** | **17%** | **21%** | **39%** | **26%** | **53%** | **30%** | **33%** | | **Median** | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Distribution of  marks | **4.1** | **4.2** | **4.3** | **4.4.1** | **4.4.2** | **4.5** | **4.6** | **4.7.1** | **4.7.2** | **4.8** | **4.9** | **4.10** | **4.11** | **4.12.1** | **4.12.2** | | **1** | **2** | **2** | **2** | **1** | **1** | **2** | **2** | **1** | **2** | **2** | **2** | **2** | **2** | **1** | | 0 | 38 | 57 | 60 | 63 | 72 | 78 | 43 | 37 | 68 | 73 | 66 | 33 | 54 | 19 | 70 | | 1 | 62 | 37 | 35 | 26 | 28 | 22 | 12 | 54 | 32 | 20 | 27 | 56 | 40 | 56 | 30 |   The learners’ response to this question was disappointing, upsetting and not up to standard.  In cases where learners performed poorly it is mainly due to:   * Not answering questions in full sentences * Not motivating their answers where needed * Not reading the questions properly. They read questions only until they think they know what is requested and often they misinterpret the question. * Lack of content knowledge. * Learners seem to read only the first part of the question and assume what the rest of the questions will look like. In other cases, they identify key words in the question and repeat the question as part of their answer. |

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| 1. **Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.** |
| The following questions were poorly answered by the majority of learners. Teachers should take note and act accordingly:  **Q 4.2**  Poor response from learners. Learners mostly mentioned the difference between a laptop and a smartphone and did not write anything about the interfaces.  **Q 4.3**  Poor response from learners. Learners did not understand what are expected from them. Learners are not allowed to bring flash drives to class – in other words this question is out of their framework. Responses were wiping, deleting and cleaning of the flash drive. Very few learners know about the repair utility.  **Q 4.4.1**  Poor response from learners. Learners did not explain the meaning of a driver and most learners referred to a driver as HARDWARE and not SOFTWARE. This is Grade 10 work.  **Q 4.7.1**  Learners struggled with this question. Poor response from learners. Learners were not exposed to the terms “different application software” and “different versions of software”.  **Q 4.8**  Learners struggled with this question. This is Grade 11 work they needed to recall.  **Q 4.12.1 – 4.12.2**  If a learner could not answer question 4.12.1, it is most likely that they would struggle with 4.12.2 as well. Most of the learners did not understand the question and are not exposed to pop-ups. |

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| 1. **Provide suggestions for improvement in relation to Teaching and Learning** |
| * Teachers should spend more time showing learners how to read a question in its entirety and explain how to break the question up into smaller sections to make it easier to understand. They should also be shown how to identify what the question wants with regards to advantages, disadvantages, reasons, etc. * It seems as if teachers did not revise Grades 10 and 11 theory. |

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| **(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.** |
| * As with most other questions learners do not read with comprehension. This might be due to a number of factors such as a language barrier or from skipping sections of the question and only focusing on specific keywords. * Learners do not understand basic terminology which should have been engrained since Grade 10. * As mentioned at the start of this report, many learners tend to write very vague answers using words like “this”, “things”, “stuff”, “fast”, “easy” etc. instead of the correct terminology. |

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| **QUESTION 5** |
| 1. **General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?** |
| |  |  |  |  | | --- | --- | --- | --- | | ***Average mark from the sample of 100*** : | | **7.5/15** | | | **SUB-QUESTION** | **TOPIC OR ASPECT TESTED** | | **AVERAGE % FROM SAMPLE** | | 5.1 – 5.8 | INTERNET AND NETWORK TECHNOLOGIES | | 26% |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Question number** | **5.1** | **5.2** | **5.3.1** | **5.3.2** | **5.3.3** | **5.4** | **5.5** | **5.6** | **5.7** | **5.8** | **Total** | | **Question Value** | **2** | **2** | **1** | **1** | **1** | **1** | **1** | **2** | **2** | **2** | **15** | | **Maximum** | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 12 | | **Minimum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | **Average** | **8%** | **40%** | **19%** | **48%** | **35%** | **10%** | **11%** | **33%** | **32%** | **23%** | **26%** | | **Median** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Distribution of  marks | **5.1** | **5.2** | **5.3.1** | **5.3.2** | **5.3.3** | **5.4** | **5.5** | **5.6** | **5.7** | **5.8** | | **2** | **2** | **1** | **1** | **1** | **1** | **1** | **2** | **2** | **2** | | 0 | 88 | 36 | 81 | 52 | 65 | 90 | 89 | 45 | 50 | 60 | | 1 | 9 | 49 | 19 | 48 | 35 | 10 | 11 | 44 | 36 | 33 |   The performance of learners in this question was very poor. The average for this question is only 26%. In 2020 the average was 50%. This is very worrying.  In cases where learners performed poorly it is mainly due to:  Lack of content knowledge, using wrong terminology as well as getting confused with some of the terminology. |
| 1. **Why the question was poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.** |
| The following questions were poorly answered by the majority of learners. Teachers should take note of the following:  **Q 5.1**  Poor responses from learners. Most learners don’t understand the term grid computing and therefore they could not answer write anything on the advantages of grid computing. It is clear from their responses that they were not exposed to this term.  **Q 5.3.1 – 5.3.3**  Poor responses from learners. The diagram was very difficult for them to interpret and most of the learners were confused with the cloud in the picture. Therefore, most of the learners wrote “cloud computing” instead of Internet of things. If a learner could not interpret the diagram as Internet of things, it is most likely that they would struggle with 5.3.2 and 5.3.3 as well.  **Q 5.8**  Very poorly answered. This was a very difficult question for the learners. Most learners did not understand synchronising of devices. |

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| 1. **Provide suggestions for improvement in relation to Teaching and Learning** |
| Teach basic terminology and put more time and effort into theory. |

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| **(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.** |
| * Learners do not read with comprehension. This might be due to a number of factors such as a language barrier or from skipping sections of the question and only focusing on specific keywords. * Learners do not look at mark allocations. * Learners do not know how to express themselves. Learners use to much general/vague terms and the memorandum only accepts certain words. |

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| **QUESTION 6** |
| 1. **General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?** |
| |  |  |  |  | | --- | --- | --- | --- | | ***Average mark from the sample of 100***: | | **5/10** | | | **SUB-QUESTION** | **TOPIC OR ASPECT TESTED** | | **AVERAGE % FROM SAMPLE** | | 6.1 – 6.5 | INFORMATION MANAGEMENT | | 57% |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Question number** | **6.1** | **6.2** | **6.3** | **6.4.1** | **6.4.2** | **6.5** | **Total** | | **Question Value** | **2** | **1** | **2** | **1** | **2** | **2** | **10** | | **Maximum** | 1 | 2 | 2 | 1 | 2 | 2 | 10 | | **Minimum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | **Average** | **81%** | **54%** | **55%** | **46%** | **67%** | **38%** | **57%** | | **Median** | 1 | 1 | 1 | 0 | 1 | 1 | 6 |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | Distribution of  marks | **6.1** | **6.2** | **6.3** | **6.4.1** | **6.4.2** | **6.5** | | **1** | **2** | **2** | **1** | **2** | **2** | | 0 | 19 | 27 | 25 | 54 | 15 | 48 | | 1 | 81 | 39 | 41 | 46 | 37 | 29 |   The performance of learners in this question was slightly better than last year. The performance of the learners in this question was average. |

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| 1. **Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.** |
| The following questions were poorly answered by the majority of learners. Teachers should take note of the following:  **Q 6.5**  Poor response from learners. This is Grade 11 work. |

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| 1. **Provide suggestions for improvement in relation to Teaching and Learning** |
| I refer you to the list of suggestions under the same headings in Question 5. As those are the basic rules for successful teaching and learning in CAT Paper 2 – applicable to all questions |

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| **(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.** |
| I refer you to observations made in the responses of learners in general in this paper. They are basically the same for all questions. |

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| **QUESTION 7** |
| 1. **General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?** |
| |  |  |  |  | | --- | --- | --- | --- | | ***Average mark from the sample of 100***: | | **4.6/10** | | | **SUB-QUESTION** | **TOPIC OR ASPECT TESTED** | | **AVERAGE % FROM SAMPLE** | | 7.1 – 7.6 | SOCIAL IMPLICATIONS | | 55% |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Question number** | **7.1** | **7.2** | **7.3** | **7.4** | **7.5** | **7.6.1** | **7.6.2** | **Total** | | **Question Value** | **1** | **1** | **1** | **2** | **2** | **1** | **2** | **10** | | **Maximum** | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 10 | | **Minimum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | **Average** | **53%** | **82%** | **49%** | **20%** | **59%** | **68%** | **37%** | **55%** | | **Median** | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 5 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Distribution of  marks | **7.1** | **7.2** | **7.3** | **7.4** | **7.5** | **7.6.1** | **7.6.2** | | **1** | **1** | **1** | **2** | **2** | **1** | **2** | | 0 | 47 | 19 | 51 | 66 | 13 | 32 | 51 | | 1 | 53 | 80 | 49 | 28 | 57 | 68 | 24 |   The learners’ response to this question was average. |

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| 1. **Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.** |
| The following questions were poorly answered by the majority of learners. Teachers should take note of the following:  **Q 7.3**  Poor response from learners. Learners do not understand the term “In-app purchases”. They also do not understand the term trial period and that payment is expected after the trial period.  **Q 7.4**  Learners do not understand the concept UCD. This is Grade 11 content. |

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| 1. **Provide suggestions for improvement in relation to Teaching and Learning** |
| * When questions are differently phrased or structured, learners are unable to tackle those questions. * The learners don’t read the questions properly before they answer. |

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| **(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.** |
| * The understanding of some questions is still a problem. * The learners don’t read the questions properly before they answer. |

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| **QUESTION 8** |
| 1. **General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?** |
| |  |  |  |  | | --- | --- | --- | --- | | ***Average mark from the sample of 100***: | | **5.1/15** | | | **SUB-QUESTION** | **TOPIC OR ASPECT TESTED** | | **AVERAGE % FROM SAMPLE** | | 8.1 – 8.10 | SOLUTION DEVELOPMENT | | 28% |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Question number** | **8.1** | **8.2** | **8.3** | **8.4.1** | **8.4.2** | **8.5** | **8.6** | **8.7** | **8.8** | **8.9** | **8.10** | **Total** | | **Question Value** | **2** | **1** | **1** | **1** | **2** | **2** | **1** | **1** | **1** | **2** | **1** | **15** | | **Maximum** | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 10 | | **Minimum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | **Average** | **5%** | **36%** | **6%** | **52%** | **10%** | **27%** | **3%** | **14%** | **26%** | **83%** | **42%** | **28%** | | **Median** | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Distribution of  marks | **8.1** | **8.2** | **8.3** | **8.4.1** | **8.4.2** | **8.5** | **8.6** | **8.7** | **8.8** | **8.9** | **8.10** | | **2** | **1** | **1** | **1** | **2** | **2** | **1** | **1** | **1** | **2** | **1** | | 0 | 91 | 65 | 94 | 48 | 81 | 59 | 97 | 86 | 74 | 10 | 58 | | 1 | 8 | 34 | 6 | 52 | 19 | 29 | 3 | 14 | 26 | 14 | 42 |   The learners’ response to this question was disappointing, upsetting and not up to standard. These questions were based on practical work. This is a good example of teaching theory together with practical work. |

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| 1. **Why was the question poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.** |
| Many learners could not respond correctly to most of the question. In general learners usually battle to answer practical work in a theory paper.  In cases where learners performed poorly it is mainly due to:   * They don’t know the reasons for using the hyphenation feature in word processing. * They don’t know the way to insert text into an existing document without using copy and paste method. * They are not familiar with the ways to view the whole function in Excel. * They don’t know the meaning of a horizontal rule in HTML – most learners only think that a horizontal rule is for “nice display”. |

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| 1. **Provide suggestions for improvement in relation to Teaching and Learning** |
| When teachers do practical, they need to explain the theory or how it works in theory as well.  Explain to the learners why we do certain functions and work in practical as well as the advantages of using certain features in the different programs. |

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| **(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.** |
| Learners do not know how to apply practical work in theoretical context. |

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| **QUESTION 9** |
| 1. **General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?** |
| |  |  |  |  | | --- | --- | --- | --- | | ***Average mark from the sample of 100***: | | **10.5/25** | | | **SUB-QUESTION** | **TOPIC OR ASPECT TESTED** | | **AVERAGE % FROM SAMPLE** | | 9.1 - 9.6 | INTEGRATED SCENARIOS | | 48% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Question number** | **9.1.1** | **9.1.2** | **9.1.3** | **9.1.4** | **9.2.1** | **9.2.2** | **9.2.3** | **9.3** | **9.4.1** | **9.4.2** | **9.5.1** | **9.5.2** | **9.5.3** | **9.6.1** | **9.6.2** | **9.6.3** | **Total** | | **Question Value** | **2** | **1** | **2** | **2** | **1** | **1** | **1** | **2** | **2** | **2** | **2** | **2** | **1** | **2** | **1** | **1** | **25** | | **Maximum** | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 23 | | **Minimum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | **Average** | **36%** | **28%** | **50%** | **32%** | **20%** | **42%** | **64%** | **29%** | **52%** | **59%** | **81%** | **77%** | **49%** | **22%** | **5%** | **45%** | **48%** | | **Median** | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Distribution of  marks | **9.1.1** | **9.1.2** | **9.1.3** | **9.1.45** | **9.2.1** | **9.2.2** | **9.2.3** | **9.3** | **9.4.1** | **9.4.2** | **9.5.1** | **9.5.2** | **9.5.3** | **9.6.1** | **9.6.2** | **9.6.3** | | **2** | **1** | **2** | **2** | **1** | **1** | **1** | **2** | **2** | **2** | **2** | **2** | **1** | **2** | **1** | **1** | | 0 | 42 | 72 | 24 | 62 | 80 | 58 | 36 | 56 | 21 | 17 | 9 | 12 | 51 | 65 | 95 | 55 | | 1 | 45 | 28 | 52 | 12 | 20 | 42 | 64 | 31 | 54 | 49 | 20 | 22 | 49 | 26 | 5 | 45 |   Once again the performances of learners in this question range from average to very poor. |
| 1. **Why the question was poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.** |
| **Q 9.1.3**  Learners did not respond well to this question because they confused the term “mobile” with “portable”. The concept of mobile learning refers to “a handheld computing device” and not the use of a laptop. This is very important for teaching purposes for next year.  **Q 9.6.2**  Learners did not respond well to this question because this is a practical question. |

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| 1. **Provide suggestions for improvement in relation to Teaching and Learning** |
| I refer you to the list of suggestions under the same headings in Question 5. As those are the basic rules for successful teaching and learning in CAT Paper 2 – applicable to all questions. |

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| **(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.** |
| These questions were based on application as well as practical. Many learners could not respond correctly to these questions. |

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| **QUESTION 10** |
| 1. **General comment on the performance of learners in the specific question. Was the question well answered or poorly answered?** |
| |  |  |  |  | | --- | --- | --- | --- | | ***Average mark from the sample of 100***: | | **8.5/25** | | | **SUB-QUESTION** | **TOPIC OR ASPECT TESTED** | | **AVERAGE % FROM SAMPLE** | | 10.1 – 10.8 | INTEGRATED SCENARIOS | | 24% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Question number** | **10.1.1** | **10.1.2** | **10.1.3** | **10.1.4** | **10.2.1** | **10.2.2** | **10.2.3** | **10.2.4** | **10.3.1** | **10.3.2** | **10.4.1** | **10.4.2** | **10.4.3** | **10.5.1** | **10.5.2** | **10.5.3** | **10.6** | **10.7** | **10.8** | **Total** | | **Question Value** | **1** | **1** | **2** | **1** | **2** | **1** | **1** | **1** | **1** | **2** | **1** | **1** | **1** | **1** | **1** | **2** | **3** | **1** | **1** | **25** | | **Maximum** | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 1 | 1 | 20 | | **Minimum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | **Average** | **14%** | **40%** | **19%** | **50%** | **35%** | **10%** | **16%** | **13%** | **8%** | **5%** | **34%** | **5%** | **10%** | **85%** | **25%** | **32%** | **28%** | **8%** | **22%** | **24%** | | **Median** | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Distribution of  marks | **10.1.1** | **10.1.2** | **10.1.3** | **10.1.4** | **10.2.1** | **10.2.2** | **10.2.3** | **10.2.4** | **10.3.1** | **10.3.2** | **10.4.1** | **10.4.2** | **10.4.3** | **10.5.1** | **10.5.2** | **10.5.3** | **10.6** | **10.7** | **10.8** | | **1** | **1** | **2** | **1** | **2** | **1** | **1** | **1** | **1** | **2** | **1** | **1** | **1** | **1** | **1** | **2** | **3** | **1** | **1** | | 0 | 72 | 60 | 71 | 50 | 52 | 80 | 69 | 74 | 84 | 91 | 33 | 90 | 81 | 15 | 75 | 47 | 42 | 92 | 78 | | 1 | 28 | 40 | 21 | 50 | 26 | 20 | 31 | 26 | 16 | 9 | 67 | 10 | 19 | 85 | 25 | 43 | 36 | 8 | 22 |   The learners’ response to this question was disappointing, upsetting and not up to standard. |
| 1. **Why the question was poorly answered? Also provide specific examples, indicate common errors committed by learners in this question, and any misconceptions.** |
| **Q 10.1.1 – 10.1.4**  Learners did not respond well to these questions because it was practical work. Learners are not exposed to changing the default browser or operating system associated with the Edge browser. These questions were also a bit out of the framework of the framework of the learners.  **Q 10.2.2**  Learners did not respond well to this question because they could not identify the purpose of a 2-step authentication process. This question was also a bit out of the framework of the learners.  **Q 10.3.1**  Learners did not respond well to this question – they gave **examples** of wireless technology and could not **identify** the type of technology used.  **Q 10.5.2**  Learners did not respond well to this question because it was practical work.  **Q 10.5.2**  Learners did not respond well to this question because they do not understand the meaning of “utility”. |

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| 1. **Provide suggestions for improvement in relation to Teaching and Learning** |
| I refer you to the list of suggestions under the same headings in Question 5. As those are the basic rules for successful teaching and learning in CAT Paper 2 – applicable to all questions. |

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| **(d) Describe any other specific observations relating to responses of learners and comments that are useful to teachers, subject advisors, teacher development etc.** |
| These questions were based on application as well as practical. Many learners could not respond correctly to these questions. |

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| **(e) Any other comments useful to teachers, subject advisors, teacher development etc.** |
| Please refer to the general comments at the start of this section for comments, suggestions and general ideas which could help teacher development as well as advantage our learners. |