



CHIEF MARKER'S REPORT

SUBJECT:	COMPUTER APPLICATION TECHNOLOGY P2
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1. ANALYSIS OF QUESTION BY QUESTION PERFORMANCE

QUESTION 1

MATCHING ITEMS:

- The learners do well in this question.
- Although possible answers were given from which the learners could select the correct one, learners needed the basic knowledge of the terminology used in CAT.
- By looking at the results of some canter, it is evident that the learners were not well prepared and guessed the answers.
- The results in question 1 and 2 often correspond with the results achieved in the rest of the paper.
- View of the learners new that tweet is a short message sent via Twitter.
- Some of the learners did not know that cookies are small text files that contain information about the user's preferences and choices regarding a specific website.

QUESTION 1.10

There were not correct answers for this question. The closest answers were F and Q as they were related to the size of files. The size of a typical mp3 file is approximately 4 – 8 MB.

Option F and Q were accepted as correct.

QUESTION 2

MULTIPLE-CHOICE QUESTIONS

- The overall result for this Question is good.
- Learners need to be able to make informed decisions. Learners need to apply their knowledge and not only answer parrot style.

QUESTION 2.2

Many learners do not know that a modem allows the computer to send and receive data via a telephone line.

QUESTION 2.4

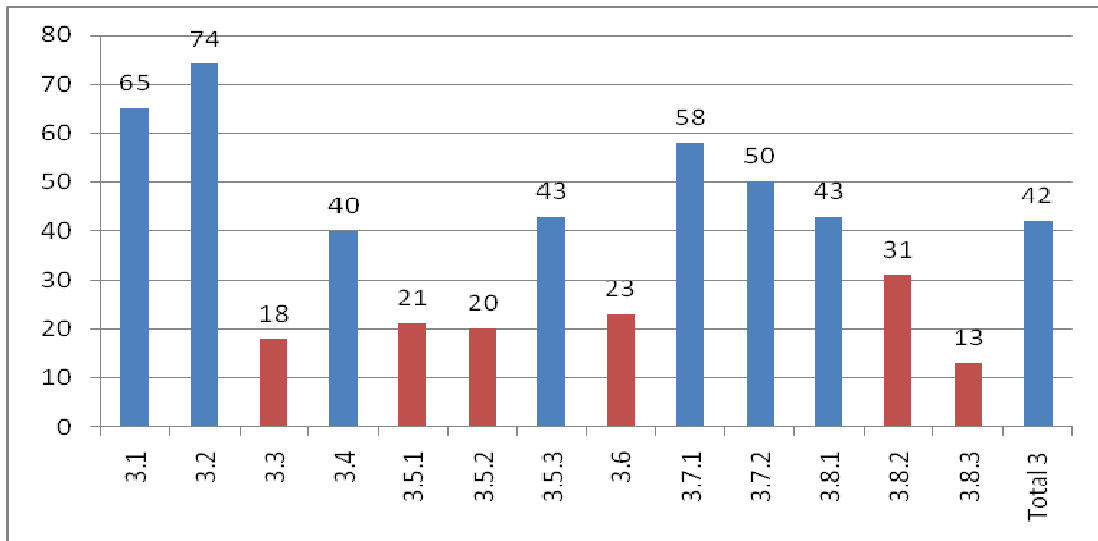
Learners need to be aware of the most common file extensions e.g. (mpeg, zip, jpeg, rtf etc.)

QUESTION 2.6

Many learners did not know that a report in a database can not be used in a mail merge.

QUESTION 3.

CONTENT TESTED: HARDWARE AND COPYRIGHT



GENERAL COMMENT:

- The performance of learners in this question was average.
- Educators must make sure that learners understand the difference between advantages and disadvantages. These two aspects are often asked when learners are requested to make comparisons. Learners need to read the questions carefully.
- Educators need to expose learners to new technologies as they are expected to keep up to date with the latest developments in CAT.



QUESTION 3.2

Learners give the advantages of a laptop instead of the disadvantages. Learners need to know that **a laptop can be upgraded**, but that it may be more difficult to upgrade.

QUESTION 3.3

Learners do not know this new technology, they think a netbook computer and a laptop is the same thing. Educators need to expose learners to the latest new technologies.

QUESTION 3.4

Most of the learners answered with one word answers e.g. Bluetooth, USB etc. Educators need to teach learners to answer in full meaningful sentences.

QUESTION 3.5

Disk fragmentation – Learners do not understand the concept of fragmentation. They also confuse the terminology ‘fragmentation’ and ‘defragmentation’. It is important that educators stress the fact that defragmentation DOES NOT open up extra space on the hard drive. The hard drive space remains the same – the fragmented files that were scattered are saved in adjacent locations again.

QUESTION 3.6

Badly answered. This is not the first time that this question appears in a grade 12 paper. Learners name hardware devices and not the operating system functions as requested. Learners do not know all the functions of an operating system.

QUESTION 3.8.1

The concept of ownership of photos and information/data on the Internet needs to be taught to learners.

QUESTION 3.8.2

Response to this question was poor. Learners do not fully understand the term *resolution*. Educators need to explain to them how to reduce the resolution of



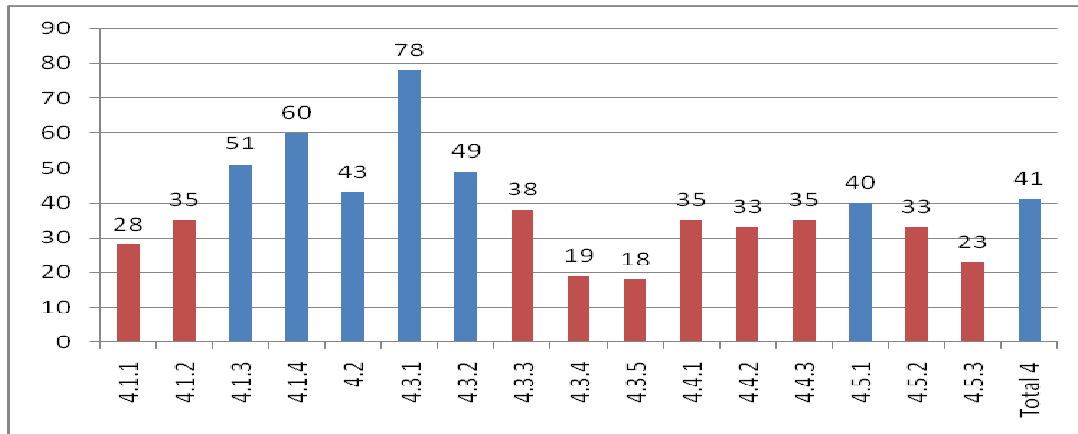
images, why it is often needed and why photos on the internet are often saved in a lower resolution. The concept of uploading and downloading and the speed involved compared to the resolution should be explained to them.

QUESTION 3.8.3

Poorly answered. Learners need to know the types of application software e.g. photo editing software, word processing software etc. Learners were confused with Application Software and the different types of application software you can find.

QUESTION 4

CONTENT TESTED: SOFTWARE, SOCIAL NETWORKING, MALWARE, SOCIAL AND ETHICAL ISSUES



GENERAL COMMENT:

Learners do not read the questions with care.

QUESTION 4.1.1

Learners did not read the question properly and just started answering it and in the process did not answer what was required. They overlooked the important (notes) like words in brackets, so they missed the whole meaning of the question. Many candidates gave the definition of an Office Suite instead of naming the advantages thereof. Many of the learners do not know what an office suite is.

QUESTION 4.1.2

Learners could not apply their knowledge to solve the problem posed. Problem solving is part of the assessment standards required from the grade 12 learners.

QUESTION 4.3.3 – 4.3.4

Learners do not know the difference between a virus, spyware and adware.

The following aspects of malware needs to be taught:

- Define the malware e.g. spyware (give the purpose)
- Mention the signs that they are present on the computer

Very few learners know what Adware is.

QUESTION 4.3.5

Learners need to know the following about Anti-virus software:

- How it works(function) – to prevent a virus from entering your computer and by removing a virus by scanning
- why it needs to be updated – new viruses are created every day
- what is updated? – the signatures, virus definitions

Most of the learners knew that it is necessary to update the anti-virus program, but they did not know that the definitions/signatures are actually updated.

QUESTION 4.4.1

Digital divide: Most learners know the terminology *digital divide*. Many have a misconception that it has only to do with rural and urban areas and that it is only about computers and the Internet. A digital divide is about people anywhere who lack any form of technology or who are not able to use the technology at their disposal.

QUESTION 4.4.2

Learners were not able to mention practical ways, other than funding, to make the digital divide smaller. This is once again a test of their skills to practice problem solving techniques.

QUESTION 4.4.3

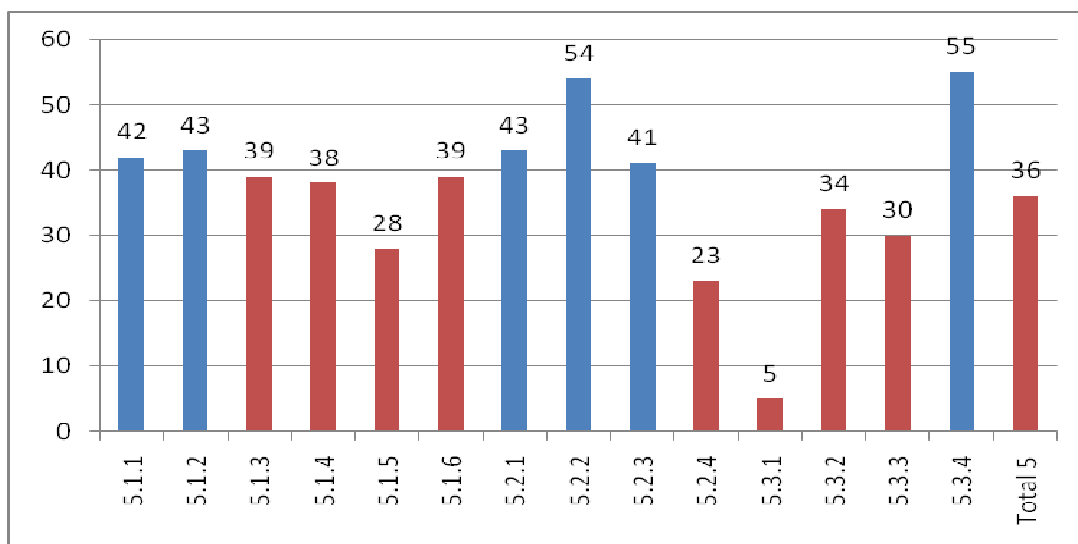
Although learners know how to use the functions on the cell phone, they were not able to mention the difference between a smart phone and a normal cell phone? They need to be aware that a smart phone has an **operating system and that it has a variety of applications.**

QUESTION 4.5.2 – 4.5.3

Learners found this question difficult. They do not know what the purpose of a GPS is and how the coordinates provided can be used. Educators need to expose learners to this technology and educate them in how it can be used, and what the advantages of this technology is.

QUESTION 5

CONTENT TESTED: NETWORKING AND THE INTERNET



QUESTION 5.1.3 – 5.1.4

Many students gave the answer “gives the sense of freedom. Teach learners about wireless networks, how they function and how they are set up.

Many learners do not know the difference between the Internet and a Network. The moment they read the word wireless they think of a cell phone and a wireless mouse and keyboard. The advantages and disadvantages of a wireless LAN needs to be taught.



QUESTION 5.1.5

The majority of learners do not know what the function of a file server is. They are therefore not able to give hardware specifications for a file server as was requested. Answers depend on their classroom situation. In most cases the teacher's workstation is seen as a file server and they think it controls the network. Learners need to be educated about the different types of servers available and what their specific functions are. Learners need to know that a file server stores all the network users' files, and therefore needs a bigger hard drive and more RAM.

QUESTION 5.1.6

Learners can not apply their knowledge and explain how to reduce the number or size of files that are backed up.

QUESTION 5.2.4

Many learners did not know about the different speed specifications in an ADSL package. Teachers should explain to the learners what the difference between uploading and downloading speed is.

QUESTION 5.3.1 – 5.3.2

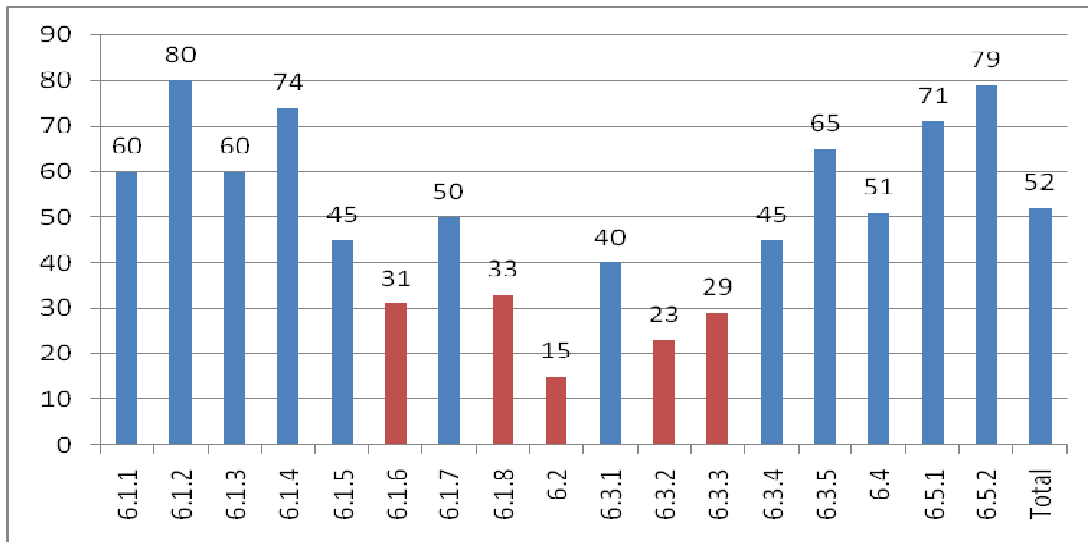
The e-book reader is a new concept for most learners. Very few have knowledge of it and how it functions. Questions like this on new technologies pose a challenge to teachers to not only rely on textbooks, but to keep up to date with the latest developments.

QUESTION 5.3.3

Learners are not able to explain what identity theft is. Most of the students wrote that it is : "stealing or using someone's info" . Identity theft refers to the illegal use of someone's personal details to impersonate that person in transactions.

QUESTION 6

CONTENT TESTED: E-MAIL AND SOCIAL NETWORKING



In general this question was better answered than all the other questions. Learners who are exposed to Social Networking and computer games could answer this question well.

QUESTION 6.1.6

Learners are not clear on the difference between Bcc and Cc. Practical application of e-mail in the classrooms will help to teach learners what the functions of these 2 fields are.

QUESTION 6.1.8

Learners do not understand that opening large attachments reduce the CAP available. The learners mention that it is expensive but do not explain why. Learners need to be educated about the CAP provided and the influence uploading and downloading has on it.

QUESTION 6.2

The response to this question was poor. The younger generation do not use email accounts to send /read email. They only use the email accounts to open a Facebook account. Creating distribution groups in your email account - needs to be educated in a practical way.

QUESTION 6.3.2 – 6.3.4

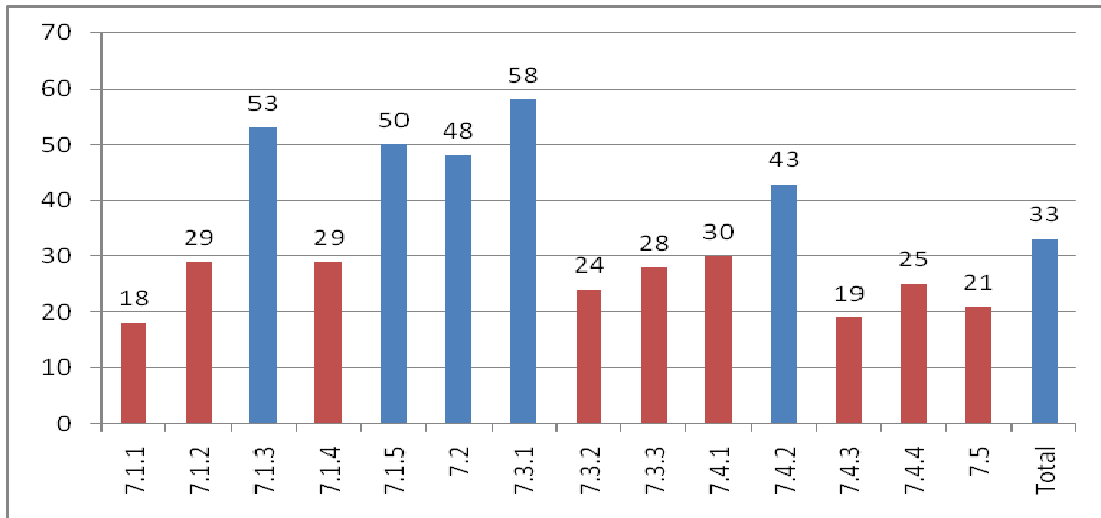
Some learners could not differentiate between the disadvantages dangers of using Social Networks.

It is clear in the response from some schools that they do not have Internet access. Facebook, Twitter and blogging is only taught in theory. It is essential that learners are exposed to these programs in a practical way and in an controlled environment.

Teachers should be encouraged to make use of technology like Facebook, Twitter, Mxit and blogs.

QUESTION 7

CONTENT TESTED: TROUBLE SHOOTING/ APPLICATION SOFTWARE



In general this was the question that had the weakest response and not because of time constraints. Learners find it difficult to express themselves when explaining the steps to follow.

QUESTION 7.1.1

FAQ – Some learners misinterpret the “Note” and were under the impression that they were not allowed to use the words *frequently asked questions*. They need to know that these are questions and answers that are often/frequently asked about a specific topic.



QUESTION 7.1.2

Learners can not apply their knowledge in problem solving. Many gave a step by step explanation of how to format the table of contents to include all headings.

Expected answer: the headings are not formatted in the same style as the exiting headings

Solution: format the style of the headings and update the table of contents

QUESTION 7.1.4

Learners need to apply their knowledge and skills and explain how to use section breaks and page orientation. Learners do not know how to use section breaks effectively and therefore could not explain the process to follow.

QUESTION 7.3.2 – 7.3.3

Absolute cell addressing: Educators need to use correct terminology when teaching this aspect. Learners cannot explain why absolute cell addressing is used and what the results are when used.

QUESTION 7.4.1

Most learners could choose the correct field to apply the default value to, but very few could motivate their choice. The learners could not express the reasoning behind its use. Some do not know what a default value is.

QUESTION 7.4.2

Many learners could not differentiate between *sum* and *count*.

QUESTION 7.4.3

Learners did not know that they had to group before sorting.

QUESTION 7.4.4

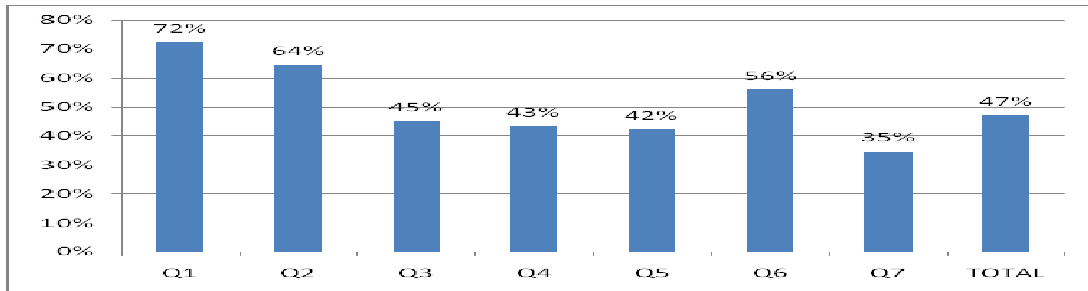
Learners could not give good reasons why codes are used in data capturing.

QUESTION 7.5

Many learners do not know what a primary key is. Educators must teach the database application. Teachers should explain to them that it is NOT the MOST IMPORTANT field in the database – it is any field with UNIQUE features e.g. an ID number. The purpose of the primary key is to prevent duplication of records.

7. ANY ADVICE THAT YOU COULD GIVE TO EDUCATORS TO HELP LEARNERS TO REACH THE EXPECTED LEVELS

RESULTS TAKEN FROM A 100 SCRIPTS:



The learner should understand the concepts of these technologies to make informed decisions in a real-life end-user scenario, ranging from choices of technology to its responsible use.

Teachers should ensure that CAT terminology is taught in class. Learners don't know how to express themselves or use the correct terminology. More time should be set aside in class to teach theory. CAT terminology should be emphasized in class. Learners write long sentences instead of using the correct terminology. When giving examples teachers must make sure that the examples are relevant.

Teachers base their teaching on a textbook and not on the curriculum. If the textbook does not cover something, the learners are not prepared about the topic.

Guidance about NEW Technologies and developments is needed so that there is consistency about what must be taught. Teachers should stay up to date with the new technology as it might be examined in future question papers. Teachers are advised to use YouTube as a teaching tool to download videos that explain concepts e.g. RSS feeds, how to build a computer, what Twitter and Facebook is, etc.

Some schools restrict access to Facebook. Schools should be able to allow learners to explore Facebook in CAT classrooms as it is an examinable topic.

Email should also be taught in a practical environment to make it easier for the learners to comprehend the questions.

Teachers should always try to make theory "real" by actually showing them how the theory works in practice.

Learners are careless readers. Exam writing skills should be taught. Questions should start at the top of a page and correct numbering should be applied.

Educators are recommended to use exemplars and past question papers and memorandums to expose learners to the type of questions that are usually asked.

CAT teachers should work with other CAT colleagues to share resources and knowledge. Make use of computer magazines and use these in your classroom to expose learners to new technologies.

8. ANY OTHER COMMENTS

Although the instructions are clear, the linguistic ability of many learners is so low that they do not understand the questions and therefore could not answer the questions.

There is also the problem with textbooks and the fact that learners are examined on grade 10-12 work. Most learners sell their books at the end of each year or in schools where books are given, it is taken back for the next learners.

Teachers must do revision of grade 10 and 11 work and if they do not have enough textbooks, grade 10 and 11 work can be summarised in order to study for the grade 12 examination.

Learners should be taught exam writing skills.

- Questions should start at the top of a page and correct numbering should be applied – same as on the question paper.
- The exam answer book of the department should be used to train learners – especially for the answering of the multiple choice questions.
- The use of highlighters for answering questions 1 and 2 is recommended.
- Lines should be left open between different questions.
- Teachers should encourage learners to write neater and bigger.
- Some papers were very difficult to mark because of that and learners may even lose marks.

Teachers should teach the learners to manage their time well when writing examination so that they spend enough time also on the last questions.

Principals of schools offering CAT should take the responsibility and ensure that their school meet the requirements to offer the subject. They should be made aware of the budget implications and their responsibility towards learners.

It is disturbing to notice that all the problem areas that were discussed in previous reports are still not addressed. If teachers do not receive a report in time, they should contact the department and demand a copy. These reports are compiled to assist teachers to improve their teaching and also to prepare learners for the examination. Teachers should study these reports and make sure they apply the suggestions. (Suggestion: What about forming subject groups to discuss the report and support each other in this way).

