

ASSESSMENT AND EXAMINATIONS DIRECTORATE

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NSC 2015 CHIEF MARKER'S REPORT

SUBJECT	COMPUTER APPLICATIONS TECHNOLOGY
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PAPER	1
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DATE OF EXAMINATION:	19 OCTOBER 2015	DURATION:	3 HOURS
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This section of the instrument is aimed at providing valuable feedback to schools, subject advisors, teachers and learners about common errors committed by candidates in the answering of questions, to assist teachers and subject advisors to identify areas that need to be given special attention in the teaching and learning of the subject in 2016.

Your responses will be based on two parts:

Section 1: General overview of Learner performance in the question paper as a whole

Section 2: Comment on candidates' performance on individual questions (Detailed explanations must be provided **per question** as follows: (You may include sub questions where necessary)

- General comment on the performance of learners in the specific question.
Was the question well answered or poorly answered?
- Why the question was poorly answered?
- Provide suggestion for improvement in relation to teaching and learning
- Describe any other specific observations relating to responses of learners
- Any other comments useful to teachers, subject advisors, teacher development

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

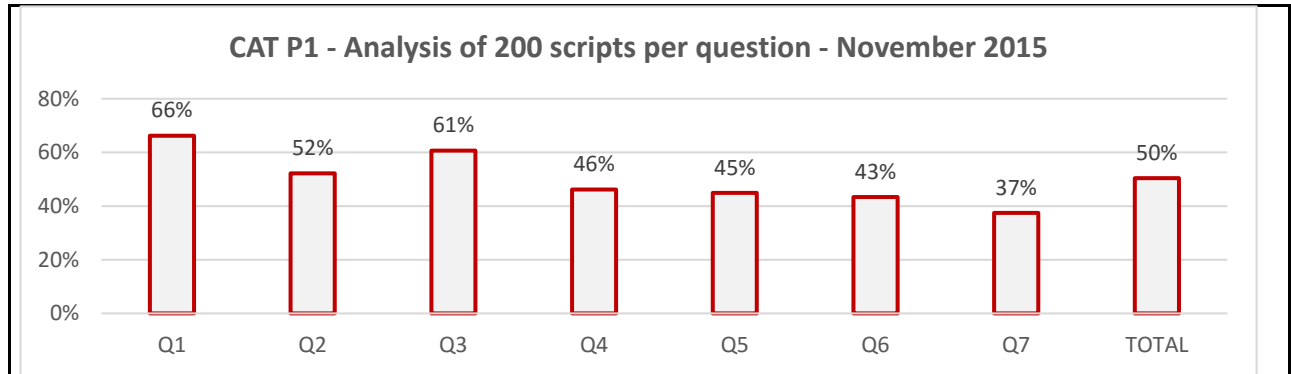


Figure 1: The above graph is a reflection of a sample of **60 weak, 80 average and 60 good** performing candidates.

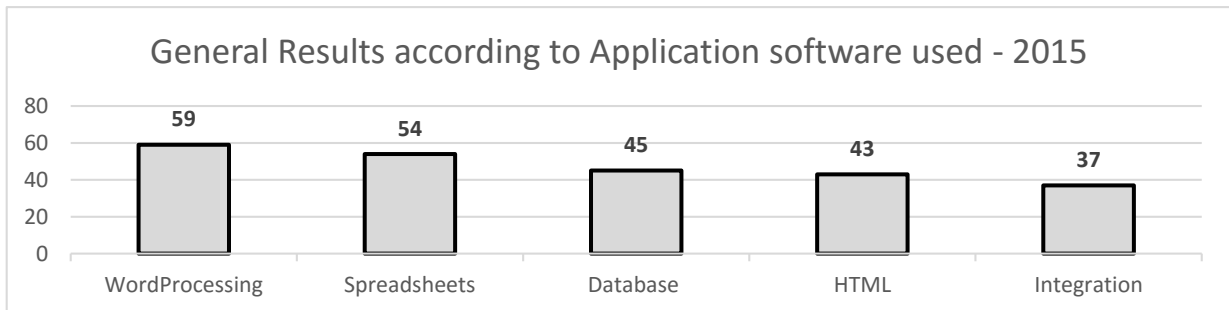


Figure 2: The general achievement of candidates according to Applications examined.

- The paper was of a **high standard**.
- In general the majority of the Eastern Cape learners did not perform well in this question paper.
- Many did not complete the paper or left questions out (reflected in the graph above).
- Many candidates lack reading and comprehension skills and can therefore not determine what is required from them.
- Many candidates lack the skills and knowledge required to answer even the easy questions.

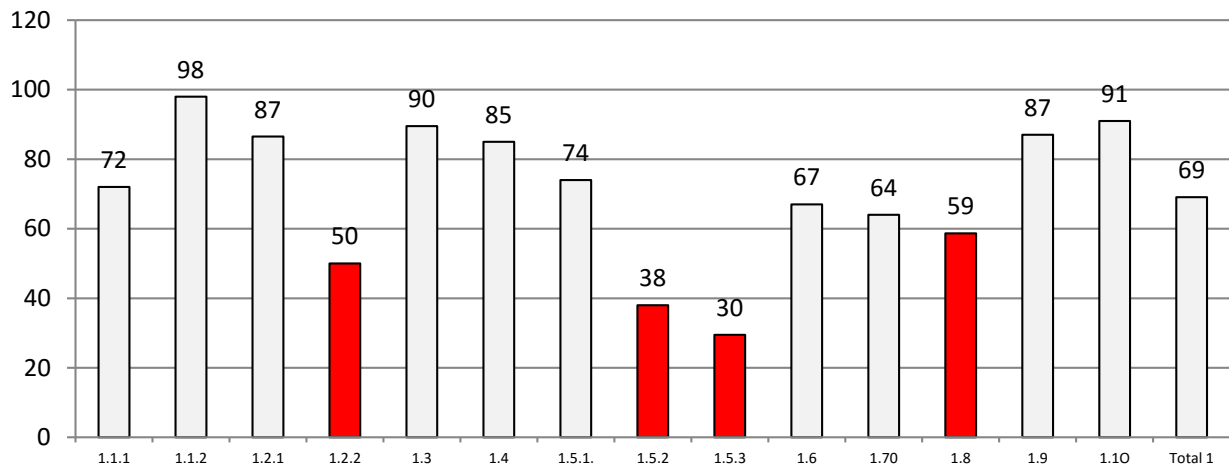
SECTION 2: Comment on candidates' performance in individual questions

(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?

QUESTION 1: Word Processing (31 marks)



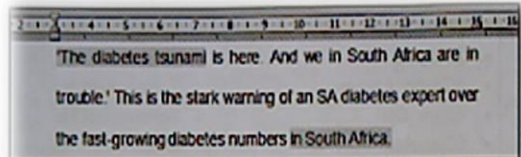
The majority of the candidates who attempted this question did well in it.

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

The following areas were problematic for candidates:

Question 1.2.2 (Most weaker candidates lost these 3 marks)

- This was an analytical/investigative question and can be seen as a higher order question. The candidates had to inspect the image and make the changes according to their findings.
- Most did not notice the right indent and the fact that the text was justified in the image.
- If candidates had been asked to change the left and right indent to a specific number and to justify the text many of them would probably have been able to answer this question.



Question 1.5.2 (Most candidates lost these 2 marks)



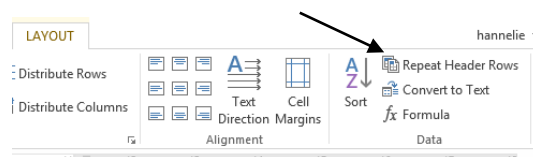
- The screenshot provided had an incorrect result for the function required (**0.7**) and this mislead many candidates.
- Most of the weaker candidates left this question out but the stronger academic candidates would have spent too much time trying to solve the problem.
- The wording of the question was also confusing to some candidates as they were asked to work out the average minimum %, thinking that the minimum is a function they must use as well as convert the answer to a %.
- The correct solution is: **7.2**

Race Group	Prevalence	
	Minimum %	Maximum %
White	4	4
Asian	4	5
Black	5	8
Coloured	8	10
Other	11	12
Indian	11	13
Average %	0.7	

`=AVERAGE(ABOVE)*# "0.0")`

Question 1.5.3 (Most candidates lost these 2 marks)

- Most candidates do not know how to apply the **Repeat Header Row** function to a table. This is an easy question if candidates were well prepared. Note that some did not select the first 2 rows but the whole table and in the process the feature did not work correctly.



Question 1.8 (Many candidates lost these 3 marks)

Candidates were instructed to (Add the text 'What's your number?' next to the picture, as indicated below)

- Many typed the text in the document and not in a text box. They received 0 marks for this.
- Candidates had to analyse/interpret that they had to add a shape and then rotate the text in a shape as plain text in a document cannot be rotated.



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

- Candidates must work through previous years papers as
 - the same type of questions are often asked and
 - candidates need to be familiarized with the way questions are asked.
- Work out of different text books.
- Encourage candidates to explore all possible alternatives (go beyond the syllabus).
- Educators must ensure that they give candidates a clear indication of what is "always" asked in the final paper (scope).

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

- Compared to 2014, candidates achieved better results in this year's Word questions.
- It is the first question and most candidates therefore attempted the question.
- Traditionally Word is the application that most candidates achieve their best marks in, and the same applies to this paper. This is the question with the best average results.

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

The following aspects should be implemented in teacher training by subject advisors:

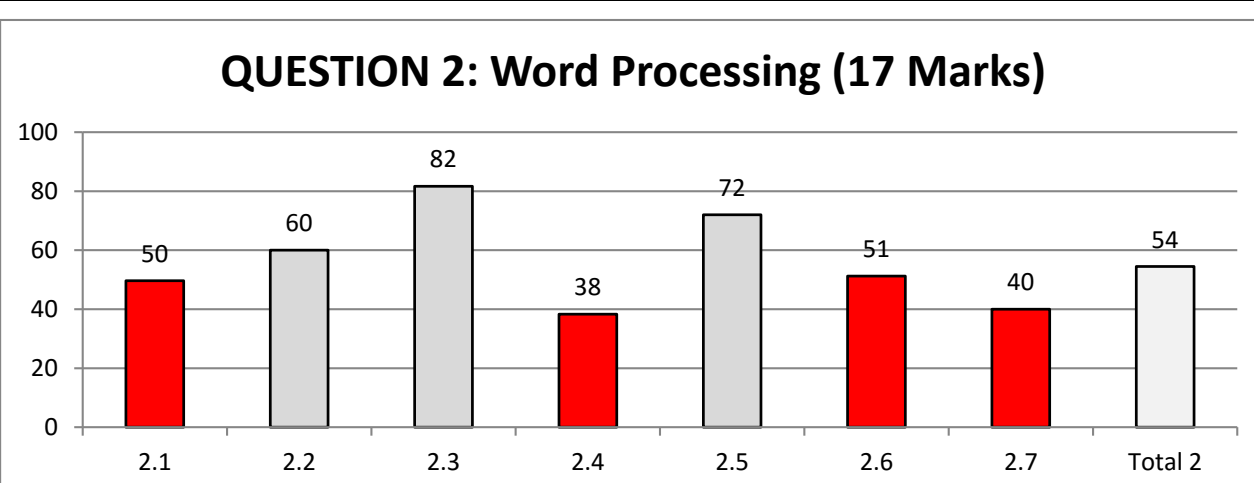
Subject Advisors must be **experts in the field** and must visit schools where there were problems with writing data onto CD's and where the results were below average.

Use the following **as workshop topics** to cover content gaps (invite experts to do the training):

- Show candidates how to open alternative options and tabs in dialogue boxes. E.g. to change text **character spacing to 120%** or selecting **text below** in a footnote.
- Tables:
 - The sorting feature in tables (Many candidates cut and paste instead of using the sorting function)
 - Using functions in calculations in tables and formatting these functions
 - Repeat Header Row settings
- Hyperlinks to different areas in a document e.g. Bookmarks or Headings

QUESTION 2

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



- Weaker results were evident in this Word-processing question.



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

The following easy questions were poorly answered: (Educators need to emphasize the following:

- The difference between a **Table of Content** and a **Table of Figures**
- Font colour versus shading of font
- Editing the properties of form fields
- Adding page borders to a section

Candidates who do not have computers at home to do homework should not chose CAT as a subject, or the school must ensure that the lab is available after hours for additional work.

At least 3 past question papers or more should be done before the final examination.

Questions that are often repeated must be drilled e.g. the use of Breaks, Developer Tab skills and Reference Tab skills.

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

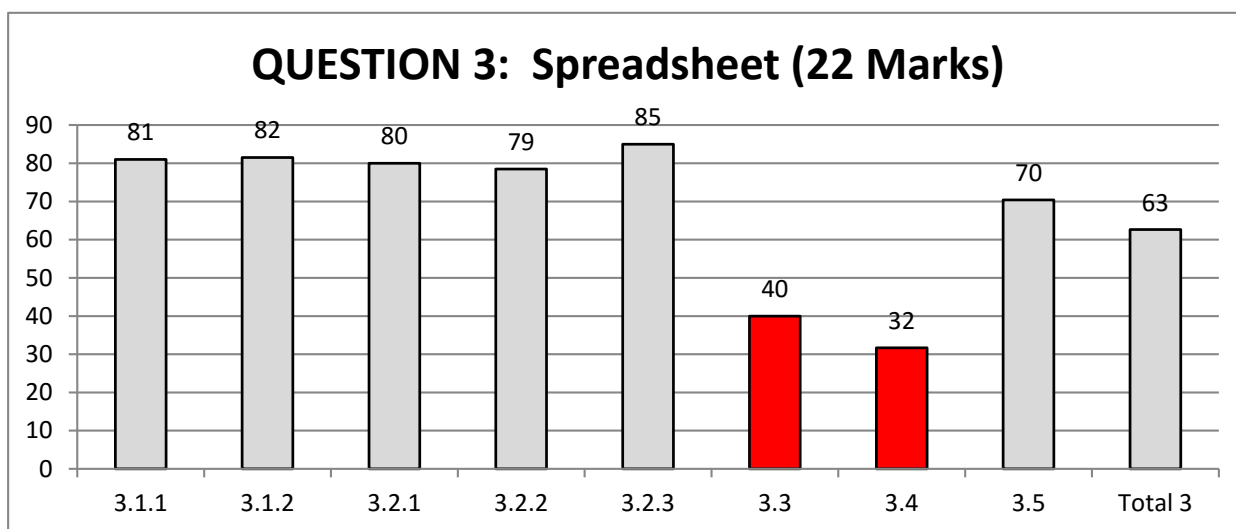
- candidates found the language difficult and do not know what a synonym is.
- In some centres candidates did very well in this question and in other centres the results are extremely weak.

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

- Subject Advisors must be experts in CAT.
- Weak performing schools must be visited and educators must explain why candidates perform so weak. If the educator is not competent they must be trained by the subject advisors.
- Workshop should be given to cover content gaps (invite experts to do the training).

QUESTION 3

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



- Many candidates did not attempt the whole question.
- Some candidates find it difficult to understand the problem and therefore cannot apply the correct solution.
- Mathematical skills and a good linguistic ability is fundamental for good results in this question.

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

The following areas were problematic for candidates:

Question 3.3 (Most weaker candidates lost these 5 marks)- ROUNDDOWN

- The question reads: "The duration of a survey is calculated by using the start date (column C) and the end date (column D) and is shown in completed years." "An incorrect formula to determine the duration of the first survey in completed years has been entered in cell E9. Modify the formula in cell E9 to display the correct answer."
 - Candidates find it extremely difficult to **combine a function and a formula** in one calculation.
 - **Many do not know how many days there are in a year** and this could also have led to them losing marks for this question.
 - The question was a higher order thinking question. The calculation and the analysing of the question was not easy.



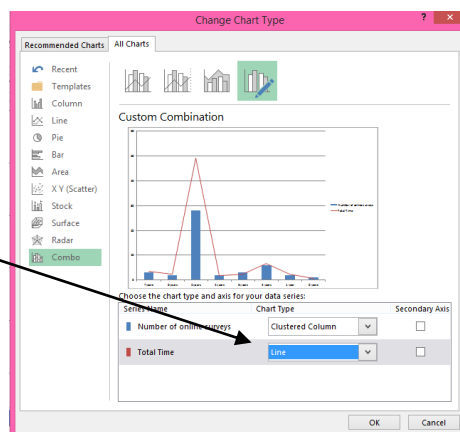
- There was a faulty solution in the answer cell and candidates had to change it to solve the problem. For many candidates this is an additional barrier when they have to analyse data and change it.

Question 3.4 (Most candidates lost these 3 marks)

- Very few candidates attempted this question (Time displayed in a decimal format).
- Candidates are taught to multiply by 24 in order to convert a time calculation to minutes, but they do not always understand the logic behind the calculation. Applying this to a calculation that has already been done and in an adjacent cell was beyond most learner's ability.

Question 3.5 (Most candidates lost 2 of the 5 marks in this question)

- In general the graph was answered well by candidates who were well prepared for the exam.
 - Some candidates could not change only the "Total Time" data series to a line graph and
 - some did not know how to change the test in the legend to "Number of years" (they do not realize that the graph-legend is linked to another sheet and when the heading is changed there the graph will also change)



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

- Candidates must practice how to format charts.
- Educators must work through old exam papers with candidates.
- Pay more attention to terminology (fill colour vs font colour, font size and row height)
- Explain and practice the difference between sum and count – grade 10 work – candidates do not know when to sum and when to count.
- Other basic functions the candidates made unnecessary mistakes with are (max and mode)
- Educators must spend more time on Date and Time functions and explain the logic behind these functions.
- The concept of rounding down and rounding up and when they can be used should be explained to candidates.
- Educators need to do revision of grade 10 and 11 work with grade 12 candidates. (time is however a factor here for many)

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

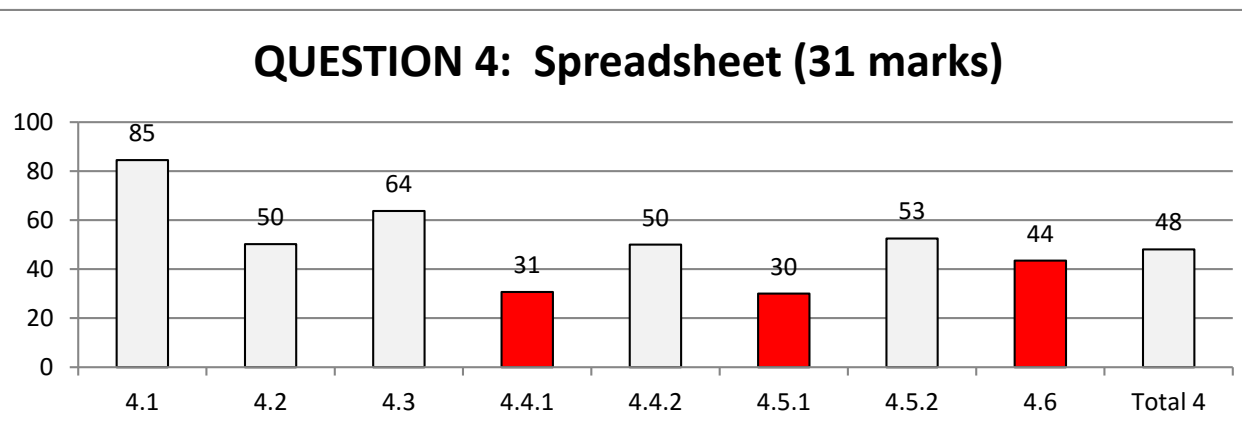
- Some candidates still type the answers in the cells and not the calculation. They do not get any marks for this.
- It is clear that some centres do not teach spreadsheet work as there are some centres where none of the candidates get any marks for Excel.
- Candidates apply conditional formatting up to 5 times in the same instruction. Candidates should delete conditions that are faulty and not continue adding conditions hoping that they will get some marks by adding more conditions.
- Renaming of files is still a problem with CAT practical examinations. Markers have to find the relevant files and since they are renamed with exam numbers they have to open all of them until they get the one they have to mark – this is time consuming and could lead to an answer not being marked if there is more than one copy of the file in the candidate folder.
- Subfolders created for data can also lead to files being missed and is very time consuming during the marking process.

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

- Educators should not tell pupils to delete files that they did not work on as markers then waste time looking for these files as they do not want candidates to be disadvantaged.
- Exam folders should only be named according to the candidate's number. (some centres still rename folders to ID numbers and names and this is problematic for marking)
- Cluster workshops for educators must take place to cover content gaps:
- CAT educators must be able to solve mathematical problems in order to explain them to the candidates. If an educator is not competent it is clear in the results their candidates produce.
- It is evident that the basic calculations and formatting are not taught in some centres as some candidates do not know how to change the row height and how to insert a colour border around a cell.
- There are social networking sites online where South African educators from all provinces can get advice and share data and exam papers. CAT teachers must be encouraged to join these blogs and sites.

QUESTION 4

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



In general the question was poorly answered.

- Many of the questions had components that required higher order thinking skills and the average to weak candidates then leave the whole question out as they have no idea of where to start with the answering of the question.
- There were many challenging questions in this section of the spreadsheet questions, as most of these questions required conditional **functions** (if) or conditional **formatting**.
- Where candidates have to combine functions and formulas in a single cell the results are usually extremely poor.

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

The following areas were problematic for candidates:

Question 4.4.1 (Most candidates lost these 6 marks)

- This question is a higher order thinking question.
- This question was challenging for most candidates.
- The question requires a combination of 2 functions. The average to stronger academic candidates could do part of the question but few were able to get full marks for the question.
- Most candidates do not know how to use the find or search function.

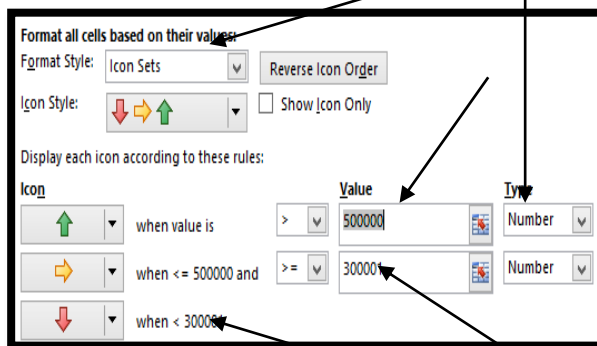
Question 4.5.1 (Most candidates lost these 2 marks)

- This question was poorly answered.
- It is not a difficult question.
- Candidates are not familiar with the **month** function.
- This question has not appeared in past papers.



Question 4.6 (Most candidates lost these 6 marks)

- Part of this question also requires higher order thinking skills.
- Conditional formatting is not a difficult concept but this question was poorly answered
 - as it was the first time that this type of condition was asked and
 - the criteria was confusing for most candidates (candidates with weak mathematical skills do not know which operators to use and what number must be used with the operator from the ranges provided)
 - Weaker academic students and students who are not well prepared do not know how to “**Read The Screen**” and select the correct software features.



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

- There is very little on date and time functions in most textbooks and educators need to spend more time to make sure candidates can master calculations with date and time.
- Old question papers are essential to practice functions.
- Weaker candidates must be shown how to use other cells as building blocks if they are not able to combine functions in one cell.
- Sufficient exercises in different conditional formatting options must be done and candidates must be encouraged to **read the screen** and explore alternative options.
- More time must be spent on teaching the simpler functions in grade 10.
- Revision is essential to drill the functions.
- Candidates waste time by typing in answers and not using functions.

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

- Questions 4.1 to 4.3 should not be too difficult for a grade 12 learner who is well prepared. Candidates do not know the basic functions.
- Question 4.5.3 (VLOOKUP) is a fair question but many candidates do not know how to use this function.

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

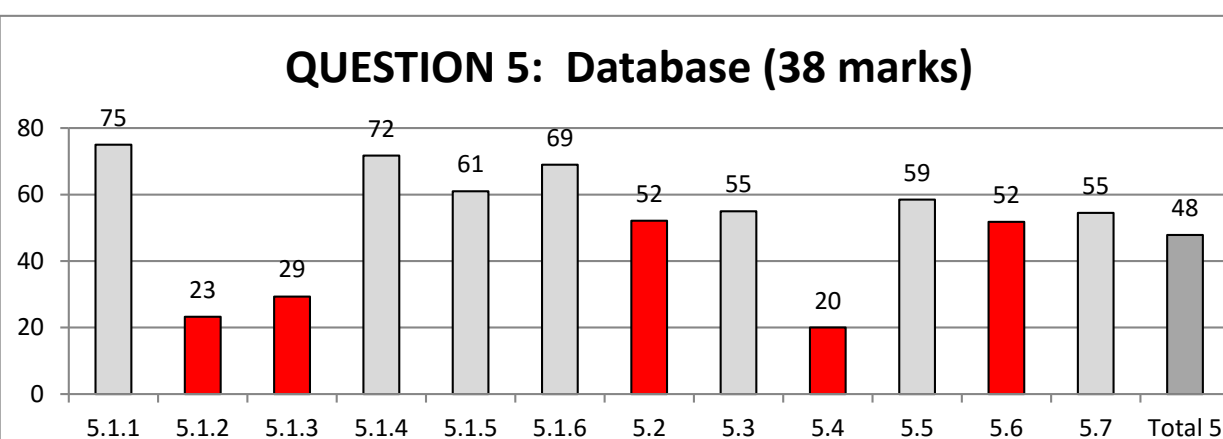
The following aspects should be implemented in **teacher training by subject advisors**:

Workshop **topics to cover content gaps** (invite experts to do the training):

- Different types of conditional functions (countif, sumif, if, nested if, sumifs, countifs)
- Different types of conditional formatting (icon sets, data bars, colour scales)
- Functions with text (LEFT, RIGHT, MID, LEN, CONCATENATE, &)
- Calculations with date and time and all other date and time functions and formatting available

QUESTION 5

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



- The question was of a **good standard** although it was not answered well.
- There were difficult and easy questions and most candidates should have been able to get some marks in this question.
- Traditionally this has been perceived as a difficult question, but more candidates attempt to answer it every year. However, it is still answered poorly by many candidates.

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

The following areas were problematic for candidates:

Question 5.1.2 - Input Mask (Most weaker candidates lost these 4 marks)

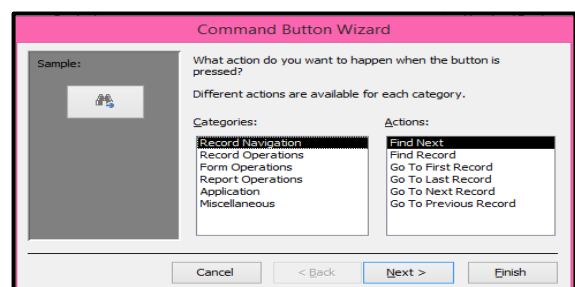
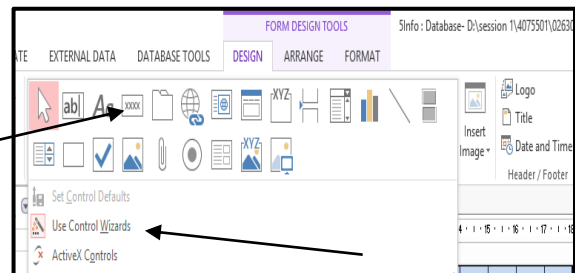
- This question was poorly answered even by the stronger academic candidates.
- Few candidates know how to use the > symbol in an Input mask.
- Candidates do not memorize the Input mask codes available and do not know how to apply them. In some Office packages the offline help does not provide a list for the candidates.

Question 5.1.3 - Validation Rule (Most candidates lost these 3 marks)

- Many candidates do not know when to apply a validation rule. The question guided them by indicating that they must add appropriate validation text. Mathematical skills play a role in deciding on an appropriate validation rule as mathematical operators are often used in these rules. The validation text should be an easy mark to obtain as all it requires is retyping an extract of the question into the appropriate area.

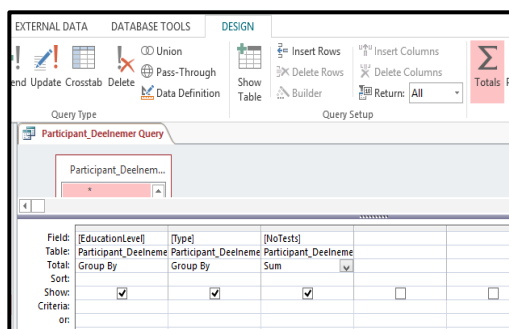
Question 5.2 – Form (Most candidates lost some of the 8 marks)

- Candidates do not know the difference between the **field** and the **label**.
- Most candidates could **not insert the button control** – this is the first time that this question is asked and candidates who do not know how to explore the design tools left the button out completely. It is important to have the Control Wizard on as it will guide candidates through the steps to follow.



Question 5.4 – Query with Total Group (Many candidates lost these 3 marks)

- The question reads: “Create a query based on the Participant table that will display the total number of tests per diabetic type per education level as shown below”. A note is then added that informs the candidate that the **SumOfNoTests** field is calculated by using the aggregate function in the **NoTest** field.



- This is a higher order thinking question. Most candidates find easier queries difficult. Very few therefore attempted this question.
- The word “aggregate” is also foreign to many candidates. (sum)
- Many candidates were under the impression that they must create a calculated field.
- Steps to follow in creating this query require:
 - Opening the query wizard
 - Selecting the correct table
 - Inserting the correct fields
 - Changing to design view
 - Selecting sum under the **NoTest** field (the field will then appear as **SumOfNoTest** in datasheet view.
- This query was only worth 3 marks but was very time consuming for most candidates.

Question 5.6 – Query with Calculated field (Many candidates lost these 5 marks)

Field:	Names	NoTests	TestFee	Paid: [NoTests]*[TestFee]
Table:	Participant_Deelnemer	Participant_Deelnemer	Participant_Deelnemer	
Sort:				
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

- Most candidates are not able to create calculated fields. This query did not require a difficult calculation.
- Most of the weaker academic candidates did not attempt this question at all.

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

- Emphasis should be given to the relation between mathematical skills and certain aspects of database work e.g. calculations in queries and reports.
- Sufficient practice should be given to help understand database concepts.
- Encourage candidates to explore the user interface of the database program in order to discover features such as the aggregate function.
- Teach candidates how to use the help function in Access.
- More time should be spent on database work and additional features should be demonstrated and not only what is in the textbooks.



- o Practice input masks skills by giving regular theory tests where candidate have to write down the input mask for a specific scenario.
- o Educators must teach candidates how to **use the question** to find appropriate validation text. Often an **extract from the question** can be used as is to get the validation text.

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

- o It is clear that there are some centres where the candidates are not well prepared for this question.
- o In some cases the candidates can modify a query but cannot answer a basic question like changing the primary key or data type.
- o Some candidates ignore easy components of questions, such as which fields should be displayed and consequently lose marks they should have been able to get.

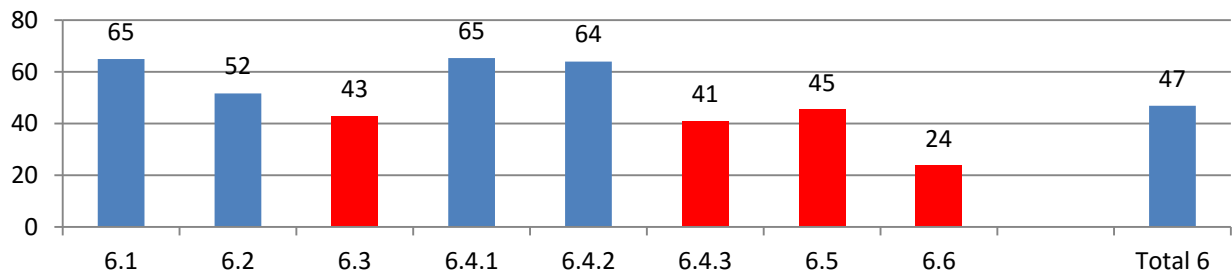
(e) Any other comments useful to teachers, subject advisors, teacher development etc.

- o Some centres do not attempt this question at all. It is possible that the educators have a lack of knowledge to teach this application package.
- o Peer teaching can be used to train educators who are lacking knowledge.
- o Subject Advisors must make sure that the standard of SBA assessments are good and must intervene during the year if they notice a school/educator is battling with database work.
- o Learner performance must be used to identify educators that need additional training.
- o District officials must support schools and ensure that the Anti-virus programs are updated and that the educators are teaching on the correct versions of the software that is required by the department.
- o Cluster/group workshops can be held to cover content gaps (invite experts to do the training)
- o Suggestions must be made to examiners to add input mask codes to the paper as we do with HTML codes.

QUESTION 6

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

QUESTION 6: Web design HTML (21 marks)



Many candidates did not attempt this question or spent the minimum time on it because of time constraint.

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

The following areas were problematic for candidates:

Question 6.2 (Most candidates lost some of the 3 marks)

- **Correct answer:** `<h1 align="center"> Type 1 Diabetes </h1>`
- The most common error was the leaving out of the `</h1>` closing tag.
- Many candidates opened the font tag twice. Once for **color** and then for **size** and then they do not close it twice – this leads to them losing one mark (-1) for omitting closing tags at end of memo.
- Candidates are often confused on where to place these tags in the document. The position of the tag is also sometimes behind the word that needs to be edited instead of before and closing it afterwards.
- Some candidates use the tag sheet examples e.g. `color="green"` instead of following the instructions and applying the tags.

Question 6.3 (Most weaker candidates lost these 5 marks)

- Candidates do not know how to add a new column. `<td>`
- Candidates get confused with `<td>` and `<th>`
- The **rowspan** tag is very difficult for candidates to understand.
- The question was not too difficult but candidates should get more experience in creating different tables in HTML.

```
<table border="5" cellpadding="10">
  <tr>
    <td></td>
    <td width="150" rowspan="2">Diabetes is often referred to as a silent killer.</td>
  </tr>
  <tr>
    <td></td>
  </tr>
  <tr>
    <td><a href="#balance"></a></td>
    <td>Check your glucose level!</td>
  </tr>
</table>
```

Question 6.4.3 (Most candidates lost the 1 mark for this question)

The question read "Display the text 'Type 1' if the picture does not show."

- This is not a difficult question.
- Candidates who cannot read find it difficult to comprehend exactly what is expected here. If the word alternative text was used more would have been able to apply the tag. In this case they had to read, analyse and make an informed decision on what to add to the coding to get the desired outcome.
- Educators need to **explain to candidates the function of alternative text**. `alt="Type 1"`

Question 6.5 (Most candidates lost these 2 marks) - Creating a numbered list within a bulleted list

- The **list within a list** confused some candidates.
- The candidates do not know where to place the opening and closing tags or the attribute added to the ordered list.
- The 3 aspect that candidate should have applied are:
 - Converting text to an ordered list: ` `
 - Selecting a type of ordered list: `type="I"`
 - Applying the list to 2 items: ` `

```
<ol type="I">
  <li>Junk food</li>
  <li>Oily food</li>
</ol>
```

Question 6.6 (Many candidates lost these 3 marks) – Anchor to a target location –

The question reads: “A link has been created on the third button, “Balancing Act”, in the third row of the table. Create the anchor (target location) for the link on the text “Balancing Act”, towards the end of the page, in order for the link to move to the anchor when it is clicked.”

- Candidates found this question extremely difficult.
- This is a higher order thinking question.
- The candidate must do the following:
 - Read and realize that there is a hyperlink on the button with the text “Balancing Act”. The words “Balancing Act” is only visible if you view it in the browser- this is extremely difficult for a candidate who cannot read well. ![Screenshot of HTML code: <td></td>|"/)
 - In notepad they will see the following:
 - The candidates now have to realize that the anchor target must be named “balance” by **investigating** the hyperlink reference.
 - They must then create a **named area** next to the correct text at the bottom of the document in order for the link to function correctly.

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

- Candidates must be **taught not to do HTML in a Word Processor** but in Notepad.
- Educators must teach candidates how to use the tag sheet as a guide.
- Educators that are not confident in teaching HTML will result in candidates who are not confident and who will leave this question out as they will perceive it as to be difficult.
- Candidates need regular practice with HTML in order to master the use of tags.
- Tables are only taught in grade 12. This could be a reason most candidates could not apply the tags to the table. If possible introduce candidates to table sooner so that they have more opportunity to apply these tags.

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

- Weak results could be because of time constraint.
- Candidates made silly mistakes like leaving out closing tags. This could be as a result of time constraint (as the question is at the end of the paper) or because of not reading instructions accurately.
- Educators who are not able to teach HTML as they are not confident with the content.
- Candidates cannot read well and this has an impact on the way they interpret the question.
- Candidates make use of the tags provided but they do not know how to apply them correctly.
- Many candidates left out **spaces** or combined tags, resulting in inaccurate results. E.g. `<aname` instead of `<a name=`

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

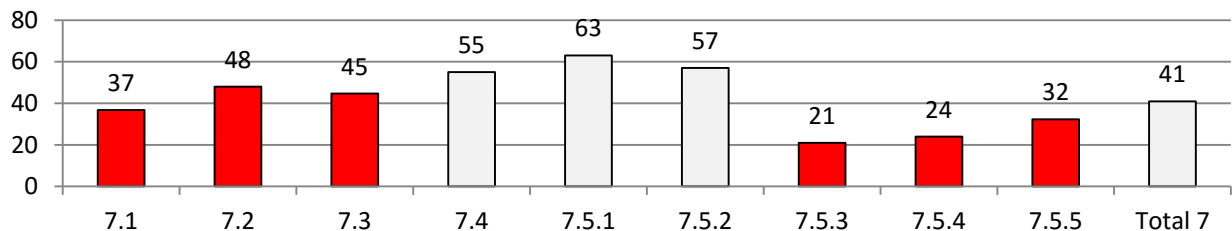
The following aspects should be implemented in teacher training by subject advisors:

- Teacher training is essential to empower CAT Educators in order to teach HTML with confidence.
- Educators must be instructed that candidates may not use word-processing applications to do the HTML coding.

QUESTION 7

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

QUESTION 7: Integration (20 marks)



- This is the last question in the paper and as a result many of the candidates did not have sufficient time to attempt this question.
- There were many analytical and higher order thinking questions in question 7.
- There are also many questions that can be labelled as "new questions" as they have not been asked in this format before.
- There were many files to open in this question and this is time consuming and contributed to candidates not being able to complete the paper in time.

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

The following areas were problematic for candidates:

Question 7.1 (Most weaker candidates lost these 4 marks)

Nested IF or a combination of AND and IF function

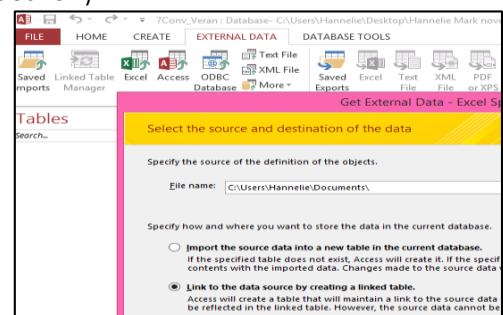
Higher order thinking question:

- This was a difficult question for the average to weaker candidates. In this question the second IF substituted the true part of the first IF. Many candidates could not grasp this question.

Question 7.2 (Most candidates lost these 3 marks)

Importing data as a linked table into a database (new question)

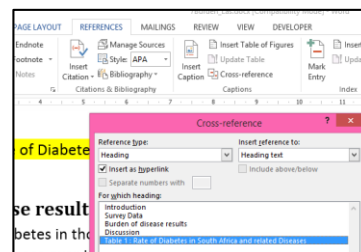
- This is not a difficult question but many candidates do not know how to import as a link. If candidates do enough of these importing activities this should be easy for them.



Question 7.3 (Most candidates lost these 3 marks)

Cross referencing using a page number as a reference to a table heading (new question not asked before)

- Cross referencing is not a common aspect covered in the syllabus.
- Very few candidates could apply this word processing skill. Right click on the reference number and select toggle field codes { PAGEREF _Ref403689563 \h }



Question 7.5 (analysing data and finding answers and then explaining how you went about to find these answers – 9 Marks)

- This question was broken up into 5 sub-questions.
 - Many candidates cannot explain how they go about to find the solution to the answer.
 - This was a higher order question as candidates had to analyse data and explain their way of thinking.
 - Time constraint contributed to low marks as candidates did not have the time to explain in detail how they went about to obtain the answer.

Question 7.5.3 (Most candidates lost these 2 marks)

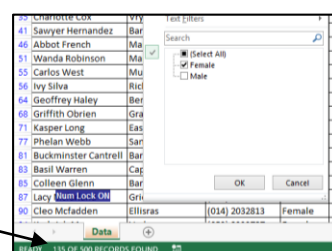
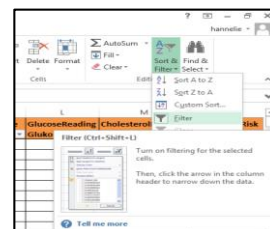
- Candidates had to work out the average age of all the members and then make use of a **countif** function to work out how many are older than the average age. There are many different ways to get the answer and any valid method would be accepted. Candidates however do not know how to explain the steps they followed in words.

Question 7.5.4 (Many candidates lost these 2 marks)

- Candidates had to extract the males from the list and then work out the average waist size of the males? Many did not realize that when they use the average function in a filter that it includes the unfiltered data.
- There are many methods that could be used to get to the solution.

Question 7.5.5 (Most candidates lost these 2 marks)

- Candidates had to filter HaertattackRisk and then filter Male and Females to compare the two and find the gender with the highest number. If the % ratio of males compared to females was worked out Men would end up being more at risk. If the explanation was valid in this case male would be accepted.
- Most candidates however do not know how to use the filter function in Excel. The solution to the filter is also visible in the bar below the filter and candidates do not now that they can view the total there.



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

- Candidates should be encouraged to teach themselves certain practical functions on the computer by **just reading the screen**. This will help them to think for themselves how to respond to a question in an examination.
- Working through past paper on their own and asking for assistance when they are not able to do the work is essential.
- Remind candidates that there will always be a component in the paper that has never been asked before. If they are able to read the screen and navigate through the application they should be able to solve these questions.

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

- Candidates did not put the header text in to question 7.4. The first part of the question is easy and most candidates should have been able to do this part of the question.
- Candidates spend too much time on certain questions to finish them and then they are not able to complete the rest of the questions in the given time. Time management is extremely important in this practical paper.
- Candidates spent too much time to try and figure out an explanation for the question instead of just filling in the answer.

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

The following aspects should be implemented in teacher training by subject advisors:

- Educators must be aware that there may be a surprise element in every CAT paper. Questions do not have to resemble the previous year exactly.
- This year no mail merge was asked in question 7 but other integration and analytical questions were asked. The learner must be able to apply a combination of skills from various applications to solve problems.
- Educators must be trained to use the help function and in workshops they could be given examples of such challenging surprise questions.

PLEASE TAKE NOTE OF THE FOLLOWING GUIDELINE – ATTACHED TO THE REPORT EVERY YEAR:

These additional IMPORTANT guidelines to **educators/principals** of schools that offer Computer Applications Technology as a subject **MUST** be adhered to.

We **supply these guidelines every year** and find that some Centres make the same repeated errors every year.

The following items have had an impact on the performance of some of the candidates in CAT P1.

MANAGEMENT OF FINAL EXAM DATA:

- 1) **Educators** need to check each Candidate folder after burning them on to the CD – too many empty folders still appear or folders are left completely off the CD. Many school submitted Data folders for Candidates that had the unedited original data OR shortcuts to files, as a result the learner will get 0 if the modified data cannot be retrieved in time.
- 2) In many of the **schools where the candidates do not perform well** there were folders missing or incorrectly labelled. This is a **reflection on a CAT educator** that is not adequately equipped to teach CAT as he/she does not have the necessary file management skills to follow up on data copied to the CD.
- 3) **EXAMINATION NUMBERS:** Invigilators **MUST** make sure that the examination number on the data folder and the mark sheet correspond. **Please use only the EXAMINATION NUMBER** to label the folder for every individual candidate. There are still schools that use ID numbers or student names to label folders. It is not possible to complete the mark sheets for these schools as we do not know who these candidates are on the mark sheet and Data verification becomes a difficult task.
- 4) CDs with Candidate data **MUST** have the **Centre name written on the CD** as many schools only write the School name on the CD and when these CDs arrive separate from the mark sheet it is very difficult to figure out to which centre the CD/data belongs to.
- 5) A **CD must accompany every mark sheet** with the data of the candidates of that mark sheet on the CD. Many schools submit one CD and then there are no CDs with additional marksheets. This causes a tremendous administrative burden as mark sheets are not always grouped together when submitted for marking at the marking centres.
- 6) The mark sheets **MUST indicate if the candidate is absent or present**. Time is wasted following up on candidates as there is no data on the CD for the candidate, but the candidate is not ticked present or absent. We cannot assume the candidate is automatically absent.
- 7) Copy **all the exam data onto the CD, and not just individual questions** done by the candidate, as some of the candidates work may be omitted.
- 8) Additional problems experienced are where centres copy Open Source and Microsoft files to candidate folders. Some candidates then work in both of the packages and this delays marking as all markers are not able to mark in Microsoft and Open Source. Only the version installed at the examination centres should be available for candidates and copied to the CDs submitted.
- 9) Candidates should only answer what is asked and not do additional things that do not count marks and that could make it difficult for the marker to find the correct answer. **Candidates must not have 3 copies of the same question on the Data CD** as the markers will not always be sure which version to mark.



- 10) It is also very time consuming scanning through all the copies trying to get the last version worked on.

PRIOR TO THE FINAL EXAMINATION

- 11) Subject Advisors must make sure that all CAT educators in the district are adequately equipped to teach CAT.
- 12) Subject Advisors must visit schools early in the year to make sure that they have the adequate facilities and hardware to offer CAT as a subject.
- 13) Schools offering CAT should work on the **latest versions of Microsoft Office**. Schools should **not use open source software** as makers are trained in Microsoft. This in turn disadvantages candidates.
- 14) Every CAT learner should have his own computer during class time. Candidates must not share a computer when being taught. The weak results of some schools are also as a result of candidates not getting enough practical experience.
- 15) **PLEASE NOTE IMPORTANT: District officials and Subject Advisors must please make sure that educators receive guidelines on how to manage a CAT practical examination.** Instructions must accompany the examination papers and must also be given to **Educators in advance to prepare the Lab according to the prescribed requirements.** CAT educators **MUST** be present during the practical examination in the lab when the paper is written (in a technical supportive role). CAT educators do not invigilate these exams but are only called to help if there is network or other technical problems. This is stipulated by the National Department of Education.
- 16) Candidates **do not know their Grade 10 work**. Build a sound foundation in Grade 10. Educators should always bear in mind that candidates are **examined on work done from Grade 10 to 12** in the final examinations.
- 17) Schools should offer Computer Literacy in grade 8 and 9 in order to prepare candidates with the basic skills required. If candidates are only exposed to computers from grade 10 onwards there is not enough time to re-enforce the skills taught.
- 18) Make time for revision! Use previous year's papers to do this. Show the candidates the memo so that they can see how their work is marked and so that they can check their answers. **Work through past papers** also to prepare candidates so that they can get used to problem solving activities. Candidates need to experience more 3 hour session exams in order to prepare them for the final exam.
- 19) Candidates are not **trained in Higher Order thinking skills and problem solving**. The grade 12 candidates should be able to **apply their application skills** to solve problems posed without being told what the steps are that they should take to solve the problem.

NAME OF THE CHIEF MARKER:

SIGNATURE

DATE

