

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/11
Written Paper

Key messages

Candidates who performed well in this paper gave answers that expanded upon points made. They also gave a justification of the statement and discussed the arguments for and against.

Candidates must give the generic names for software rather than the brand or trade name. It is clearly stated on the front page of the examination paper 'No marks will be awarded for using brand names of software packages or hardware.'

Occasionally candidates may need to expand their answers on to other parts of the examination paper or onto extra sheets. The paper is marked electronically and if the candidate writes on to other parts of the examination paper rather than using extra sheets, the candidate must clearly indicate in the original answer space where the expanded or replacement answer is to be found.

General comments

The paper gave all candidates an opportunity to demonstrate their knowledge and understanding of ICT using a wide variety of topics. The vast majority of candidates were able to complete the paper in the allotted time, and most were able to make an attempt at all the questions. A few candidates did not read the question thoroughly before they started to answer it. Candidates who performed well read the question thoroughly then thought out the answer, resulting in more thorough answers being written. Candidates were able to answer recall questions well but the successful responses seen on the longer type questions were more limited. There were fewer 'nil responses' in this marking period than in previous sessions with most candidates attempting to answer the questions even if what they wrote was of no credit. There was, however, more use of correcting fluid used in the examination especially in the tick box questions. In many cases the second tick has not been fully removed and this makes it difficult for the examiner to credit the candidate. It is clearly stated on the front of the question paper 'Do not use staples, paper clips, glue or correction fluid.'

Comments on specific questions

Question 1

This question, as a whole, was answered very well.

- (a) Virtually every candidate answered this part of the question correctly.
- (b) The majority of candidates achieved full marks on this part of the question with barcode reader and chip reader the most common errors.
- (c) The majority of candidates achieved full marks on this part of the question which asked about a device built into the laptop. Mouse was the most common incorrect answer.
- (d) Virtually every candidate answered this part of the question correctly.

Question 2

This question was well answered with most candidates achieving at least three marks, those that did not achieve the final mark were normally incorrectly ticking email and not both for the last point.

Question 3

This question tested candidates understanding of verification, validation and proof-reading. It was well answered with most candidates managing to achieve at least three marks.

Question 4

This was a topic that had been set in previous sessions of the examination; but not in this format. It tested the candidates understanding of paragraph techniques.

- (a) This part of the question was least well answered by candidates.
- (b) This was slightly better answered than part (a).
- (c) More candidates were able to answer this part of the question than parts (a) and (b), with over 50 per cent of candidates achieving this mark. The most common incorrect answer was centred text.
- (d) This part of the question was answered the best by candidates with the majority of the candidates achieving the mark. Some candidates confused left and right.

Question 5

This question tested the candidates understanding of the use of storage in the cloud. This was not a well answered question.

- (a) Most candidates achieved a mark on this part of the question with the common answers being that the cloud was accessible from anywhere. This was a question that asked about advantages and therefore the answers must be in the form of a comparison. For example, the 'cloud' has a large storage capacity is not correct but a larger storage capacity is correct as it is a comparison. If candidates answered this question as a comparison they are more likely to achieve the marks. It is also important in these questions that use a scenario that the answer relates back to the scenario, this will help increase the marks.
- (b) In part (a) the question referred to advantages whereas this part was asking about disadvantages. As with part (a) we were looking for a comparison. The most common correct answer in this part of the question was that the 'cloud' needed an internet connection. Many candidates appeared to link their own use of the 'cloud' to the question. Many personal cloud systems allow a small amount of data to be stored for free and if the password is lost then the data access could also be lost, it is important to link the answer given back to the scenario which was not about personal cloud storage.

Question 6

This question tested the candidates understanding of GPS systems. In previous examination papers we have used the topic GPS but related it to cars and vehicles. This question used a different scenario. Most candidates managed to achieve some good marks on the question.

- (a) Most candidates achieved some credit for this question. Better responses clearly described the use of three or more satellites and how a calculation is needed to locate the player. Candidates then went on to describe how this was transmitted to the computer and this data was displayed on the screen. There is still a misconception by some candidates that the data is transmitted from the player to the satellite. Some candidates added extra detail in their answer relating to the analogue to digital conversion which for this question was unnecessary.
- (b) Many candidates managed to achieve a mark for this question. This question tested the candidates understanding of what could be measured by a sensor in the given scenario. Some candidates repeated their part (a) answer which did not answer the given question.

- (c) This part was generally well answered with most candidates achieving a least a mark; mostly for the printer used. Detail is needed in the description of these types of answer in order to achieve full marks. As in previous questions relating the answer back to the scenario was important as some printers would not work in the given scenario.

Question 7

This question tested the candidates' understanding and ability to create formulas and graphs on spreadsheets. The question was fairly well answered by all candidates.

- (a) This question was well answered with many candidates achieving good marks. The question asked candidates to describe how they would create the graph shown. In this type of question, it is important to answer using generic software rather than named software which will not achieve credit. The question tested the candidates' ability to highlight the correct range to produce the graph rather than using the full range.
- (b) Many candidates were able to achieve at least a mark for giving detailed answers that related to the scenario. The question was an 'Explain' question which requires candidates to set out the purpose of, or the reasons for, their choice. There were a high number of candidates that knew the parts of the main three answers that would be expected; chart title, axis titles, legend but the majority did not explain them and so were unable to achieve full marks.
- (c) This question was well answered by many of the candidates. The correct spelling of command words in this type of question is essential to achieve marks.
- (d) Most candidates managed to achieve marks on this question. The examiners were looking for the straight forward VLOOKUP formula but were surprised by the number of more error prone IF answers given. Those candidates that gave the VLOOKUP formula generally managed to achieve higher marks than those giving IF as an answer. The formula questions relate to ICT formula which uses computer operators, for example, >= rather than mathematical operators like \geq .
- (e) Most candidates achieved a couple of marks on this question for giving detailed description of the process required. There were many different ways in which the formula could be replicated but the most popular was dragging the fill handle down to cell C15.

Question 8

This question was the level of response question that related directly to the candidates use of communication. It tested their knowledge of emails and social media and the differences between them. It was a discuss question which meant that more detailed answers were required covering both advantages and disadvantages. Many candidates managed to achieve a level 1 on the question. In this type of question statements achieve level 1, whereas more detailed answers covering both the advantages and disadvantages achieve level 2 and beyond. There were some good answers given by candidates showing that many candidates understood the differences between email and social media. Other candidates gave vague answers that could relate to both email and social media. Generic answers relating to hacking were popular plus a belief that neither emails nor social media required the internet to work. Again, as in previous questions there was a tendency to use brand names rather than generic names of software/communication systems.

Question 9

- (a) This question, as with the previous one was a discuss question which meant that in order to achieve good marks candidates need to give detailed reasoned answers. Most candidates achieved some credit for the answers they gave. The examiners awarded a mark for giving a reason for the implementation method used in the form of a conclusion. The question tested the candidates understanding of two types of implementation method and the reasons why each could be chosen, some candidates added other methods which were not credited. This type of question is looking for comparisons between the two methods rather than descriptions. In order to achieve high marks on these types of question candidates needed to read the scenario then give answers related to it.

- (b) There was a tendency from candidates to repeat the question in their answers. For example, for ease of use the answer given tended to be 'is the system easy to use'. Most common correct responses were for 'faster than old system', 'user friendly' or 'meets objectives'.
- (c) This question tested the candidates understanding of how RFID systems work. Most candidates were able to achieve a mark on the question. Higher marks were achieved for responses that demonstrated an understanding of both the devices and the process. For those that achieved some credit it was for identifying the traffic light had a reader. As in a previous question on the paper there were some candidates who explained about the change from analogue to digital data.
- (d) The most popular correct answer was that number plates needed to be seen by the reader whereas RFID did not.

Question 10

The question, as a whole, was fairly well answered. It tested the candidates understanding of secure websites used in transactions.

- (a) Correct answers from candidates for this part of the question, mostly focussed on encryption or protocol.
- (b) This part of the question was better answered than the first part with candidates answering about the use of a padlock or HTTPS.

Question 11

The question was very well answered by most candidates. The question tested candidates understanding of the internet and intranet.

Question 12

This question used two topics that had been set previously namely job roles and the use of robots in car production systems. The main element of the question was how job roles had changed in a scenario of a car production plant that used robots. In order to achieve good marks on questions of this type the candidate needs to relate the answer back to the scenario. The better responses included detailed answers that compared how the introduction of robots had changed job roles and working conditions.

Question 13

This question gave candidates the opportunity to demonstrate their knowledge and understanding of the use of supermarket automated stock control systems. Some candidates showed a general understanding of the process, but their answers often lacked detail. Other candidates mixed up this system with control systems using pre-set values. Most candidates were able to achieve some marks on the question. The better responses went beyond the ordering of the goods by explaining about the use of flags and what happened once the goods had arrived by resetting the values and the flags.

Question 14

This question gave candidates the opportunity to demonstrate their knowledge and understanding of file compression. The question produced some good answers relating to changing the file type, the colour depth and changing the resolution. To achieve good marks on this question the answers must relate to the images which were the largest single element in the file. Therefore, answers relating to font size and type would not reduce the size of the document sufficiently enough for it to be sent.

Question 15

This question was related to a newer part of the syllabus and linked directly with work carried out in the practical part of the course. Most candidates achieved a least a mark for the answers given. Presentation layer was given as an example in the question although some candidates repeated this in their answers.

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/12
Written Paper

Key messages

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General comments

The paper gave all candidates an opportunity to demonstrate their knowledge and understanding of ICT using a wide variety of topics. The use of drones and the operation of a router allowed the candidates to apply their knowledge in a new situation or context and many gave good responses to these questions. The vast majority of candidates were able to complete the paper in the allotted time, and most were able to make an attempt at all the questions. A few candidates did not read the question thoroughly before they started to answer it. Candidates who performed well read the question thoroughly then thought out the answer, resulting in more thorough answers being written. Candidates were able to answer recall questions well but the successful responses seen on the longer type questions were more limited.

Comments on specific questions

Question 1

This question was well answered with most candidates achieving marks on it. The most common error was thinking that control software was system software. Most candidates were able to correctly identify the final three points.

Question 2

This question was well answered with most candidates able to achieve at least three marks.

- (a) This part of the question was well answered by most candidates. Some candidates, however, mixed up a dot matrix printer with a laser printer.
- (b) This part of the question was also very well answered with the majority of candidates giving the correct answer. A few candidates wrote optical mark reader rather than magnetic ink character reader.
- (c) This was the least well answered part of the question although most candidates managed to write down the correct answer. A few candidates wrote down 3D printer whilst others wrote dot matrix printer.

- (d) In this part of the question virtually every candidate gave the correct answer.

Question 3

This question tested candidates understanding of creating strong passwords. It was well answered with most candidates managing to give some good answers.

- (a) Most candidates managed to achieve marks on this part of the question. The question gave a person's 'name' as an example of a weak password; some candidates repeated this in their answer. When an example is given in a question it is designed to help the candidate produce the correct answer. The question gave the example of a weak password and asked the candidates to explain why it was weak; many gave very good answers like 'the password was easy to guess' or 'that it was too short'. Other candidates incorrectly, for this question, wrote that the password was 'not strong' without expanding on their comment or that 'different passwords' were used in different accounts.
- (b) This also was well answered with many candidates able to give some good answers. The question asked the candidates to give other pieces of advice from those given in part (a) however some candidates repeated what they had written in part (a) and therefore did not achieve the range of marks. Many candidates wrote correct answers based on their own experience i.e. do not give your password to others and do not write it down.

Question 4

This was a new topic for the examination, even though it is given as an example in the syllabus. The first part of the question asked candidates to describe how a registration system worked whilst the second part asked candidates what the benefits of such a system were. The third part asked candidates to design a screen form and the last part tested candidates understanding of validation checks. Some parts of the question candidates achieved some very good marks compared to other parts.

- (a) Some candidates made good points. The question asked candidates to explain how the registration could be used and the examiners were looking for answers relating to scanning in to the system as well as setting up all the candidates. Candidates could improve on their answering of questions like this by expanding on the answer.
- (b) For part (b) the examiners were looking for benefits of this system. Some candidates gave general answers like the system would be more up to date, or that errors would be reduced. Some of the answers given were slightly vague; candidates should be more precise in their answers and link the scenario to their answer.
- (c) These types of questions had been set previously but this one was slightly different in that the Examiners wanted candidates to produce a search using semester and candidate ID fields. Most if not all candidates managed to write down all the correct fields and describe some of the buttons used; therefore achieving at least four marks. Some candidates showed drop down lists and navigation buttons. In order to achieve the full range of marks on questions of this type, candidates should clearly read the stem of the question which will give all the elements that are needed on the screen form. The semester and candidate ID fields were key elements.
- (d) Those that understood validation checks were able to achieve high marks. Some candidates simply wrote down data, whilst others wrote down the field types rather than giving validation checks.

Question 5

This question tested the candidates understanding of interfaces. It was generally well answered with many candidates able to give good answers. Answers like it is easier to use and GUI do not require commands to be typed in were very popular. However, some candidates did not give clear enough benefits or drawbacks stating that GUI required more power without expansion. In order to achieve high marks on questions of this type, candidates should give a range of both benefits and drawbacks.

Question 6

- (a) This question was the level of response question. Almost every candidate made an attempt at the question. In order to achieve the higher marks in this type of question candidates must write down more than statements. If they added expansions to the statements made, then Level 2 marks would be easier to achieve. If candidates justified the points made in both sides of the argument a Level 3 can be achieved.

This was a discuss question and some candidates are still giving answers based on a table. Although some credit is given for answers based on this method, there is a danger that candidates will not be able to achieve marks as their descriptions are shortened and does not give them room for the detailed answers needed to achieve the higher marks.

- (b) Many candidates managed to achieve a mark for this question by writing that it gave consistency to the stationery of the hospital. Other candidates gave answers on the lines that it looks more professional.

Question 7

This question tested the candidates' understanding and ability to create searches for a database. Parts (d) tested their understanding of measurement using remote controlled devices and for part (e) how data can be sent back to the computer.

- (a) This question was well answered with many candidates producing some very good search criteria. Some candidates did not give all three sets of criteria and therefore even though they achieved some marks it was not full marks. In this type of question accuracy is very important especially when the field names are written down.
- (b) Many candidates were able to successfully name both volcanoes. The question asked the candidates to give the names of the volcanoes however some candidates gave the type of volcano.
- (c) As with part (b) most candidates managed to write down the correct name of the volcano.
- (d) Most candidates managed to achieve marks on this question. Some gave answers like the drones are more expensive rather than expanding upon this this stating they were more expensive to purchase. In order to achieve higher marks on questions of this type candidates need to give both sides of the argument and then expand upon the comments made, giving a justification for the points made to achieve the highest marks. As with **Question 6(a)** those candidates that produced a table are putting themselves at risk of not being able to achieve all the marks due to their answers being shortened to fit into the table.
- (e) This is a straightforward question that tests the candidate's knowledge and understanding of analogue and digital data. Most candidates did well on this question and understood that data had to be changed so that it could be read by the computer.

Question 8

This question tested the candidates' knowledge and understanding of spam emails. It was well answered with many candidates achieving some marks.

- (a) This part of the question produced varied answers. Some candidates gave the answers to part (b) rather than explaining what spam was. Many candidates were able to explain that spam was 'unsolicited' emails whilst others simply wrote that it was 'unwanted' emails. In order to achieve high marks in this type of question the candidate should carefully read the stem of the whole question; all parts of it.
- (b) This part of the question was as well answered as the first part with candidates achieving at least a mark. In this part of the question we were asking candidates to explain why spam should be prevented. The key word in this answer was 'may'. Spam may contain a virus but not all spam contains viruses, clarity is essential. Many candidates were able to explain that spam did fill up the email's inbox.

- (c) This third part of the question asked candidates how spam could be prevented and progressed naturally from the other two parts of the question. This part of the question was as well answered as the first two parts with most candidates able to achieve a mark. Some candidates, even though they had an idea of how spam could be prevented, were not clear enough in their answers. For example, some candidates explained that spams should be blocked rather than the sender of the spam should be blocked. Also spam filters block out potential spam, some candidates wrote that anti-virus software blocked spam as they thought that all spam contained a virus. Again, in order to produce good marks on this type of question candidates should carefully read the question which was about preventing spam rather than stopping it once it had been sent.

Question 9

Some candidates stated that the router received packets of data. Some candidates confused the concept of data packets whilst others confused how a router worked.

Question 10

The question as a whole was fairly well answered, with some candidates giving full answers complete with expansions.

- (a) Many candidates gave the standard answers of questionnaires, interview etc. But in order to achieve higher marks candidates were expected to give answers like identify the problems with the current system. Many candidates were able to give the former type answers. In order to do well in this type of questions candidates should thoroughly revise analysing a system as well as giving full answers rather than one word answers, for example interview on its own did not achieve a mark but interview the railway manager did achieve a mark.
- (b) This part of the question tested candidates' knowledge of personal data that could be stored on an e-ticket. There were a large number of answers that candidates could give, and many were able to achieve both marks on this question. Candidates need to read the question then relate it back to the stem, for example passport number is a piece of personal data but not related to this question.
- (c) This part of the question was a standard question, asking candidates what verification was. The answer we were expecting was: 'To ensure that the data entered was copied correctly'.
- (d) Many candidates could answer the proofreading part but had problems with the verification part. The answers we were looking for was that proofreading checked for errors, whereas verification checked for errors using the original data. Many candidates were able to achieve at least a mark in this question.

Question 11

The question was fairly well answered with many candidates achieving good marks. The question tested candidates' knowledge and understanding of PDF and RTF file formats. Many candidates understood what RTF was. The answers given were long, but many lacked full detail; often repeating what had been written previously. The answers provided to this question, more than any other in the paper, had references to proprietary software rather than using generic names like spreadsheet and word processing.

Question 12

- (a) Many candidates were able to achieve marks on the first two elements of this question but did not achieve the marks for the last two elements. Many candidates understood that https was a secure protocol and that hothouse-design was the domain name, some candidates thought this was the name of the website. The uk and portfolio elements were not so well answered.
- (b) Many candidates were able to achieve at least a mark on this part of the question with some achieving both marks. Many candidates identified the link with another web page with some stating that it was a word or an image that was clicked on.

Question 13

The first part of this question achieved more marks than the second part. The first part tested the candidates' knowledge and understanding of functions and formulas whereas the second part tested knowledge and understanding of named ranges.

- (a) Candidates tended to achieve marks for the examples given in this part of the question or for explaining what a formula was; fewer candidates could explain what a function was even though most could give an example of it. This is probably due to the fact that candidates use functions and formulas more than they explain their use.
- (b) This was not a well answered question. Some candidates understood it was a group of cells but missed out that they were adjoining cells. Again, as in the previous question candidates use named ranges and some even gave examples of a named range, but could not fully explain them.

Question 14

Many candidates achieved at least three of the four marks. The main errors were suggesting that 'email attachments are always checked for viruses' the bottom tick box and that 'all emails had attachments'; tick box three.



INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/13
Written Paper

Key messages

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General comments

The paper gave all candidates an opportunity to demonstrate their knowledge and understanding of ICT using a wide variety of topics. The vast majority of candidates were able to complete the paper in the allotted time, and most were able to make an attempt at all the questions. A few candidates did not read the question thoroughly before they started to answer it. Candidates who performed well read the question thoroughly then thought out the answer, resulting in more thorough answers being written.

Comments on specific questions

Question 1

This question assessed candidates' knowledge and understanding of hardware and software. Candidates chose words from a list given to them. Overall the question was well answered with most candidates achieving at least three out of the possible four marks.

- (a) This part of the question was well answered by many candidates.
- (b) This was also answered well by many candidates. Some candidates wrote CPU or even hard drive as examples of hardware rather than the generic word.
- (c) This part proved to be less well answered than the other parts. Some candidates mixed up ROM or backing store with RAM.
- (d) This part produced a mixture of answers.

Question 2

Many candidates managed to achieve half the marks on this question. Candidates that re-checked the question before moving on could spot errors for example, placing two ticks on one line and then missing ticks on other lines. Candidates need to ensure that in questions like this, unless stated, one tick per line is what is expected.

Question 3

Some candidates mixed up validation with verification and proofreading. Some candidates thought that validation involved re-reading the document or checking that it was 100% correct.

Question 4

Overall this question was fairly well answered with many candidates achieving three or four marks. Parts (a) and (b) were answered better than part (c). Candidates can improve their answers on questions like part (a) and (b) by thinking of the input/output devices and then linking them back to the scenario. For example; for part (a) a mouse is an input device, but does not fit into this scenario whereas a bar code scanner would.

- (a) Many candidates produced good answers. The most common answers were keyboard and touch screen. Some candidates mixed up input devices with output devices.
- (b) Part (b) produced better answers than part (a) although quite a few candidates did not attempt it. The common answers were printers and touch screens. Some candidates gave answers that were storage devices, or input devices.
- (c) This topic tested the candidates' knowledge and understanding of errors in a system. The type of answers that the examiners were looking for were 'the item had been removed from the shelf and not been scanned' or 'the database had not been updated'. Candidates can improve on questions like this by referring their answer back to the scenario rather than giving generic answers. Some candidates gave answers that were very generic for any system for example, 'a virus has attacked the system' or 'the hardware was broken'.

Question 5

This was a describe question and therefore required the candidate to expand on statements written.

- (a) The question gave candidates an example of one of the forms of researching a new system. It is important to remember that if an example is given it is there to help the candidate answer the question. Some candidates gave interview as the answer but changed the people that were being interviewed rather than giving other forms of research like questionnaires. Candidates can improve on their answering of 'describe' questions like this by expanding on the main point given. For example, sending out a questionnaire to employees achieved a mark whereas questionnaire on its own did not.
- (b) This question was well answered with most candidates managing to achieve at least two marks.
- (c) This question gave candidates to opportunity to explain how features would help a person who had problems with their eyesight to complete an online form.
- (d) Candidates that had an understanding of implementation methods tended to achieve full marks.

Question 6

This question is one of the newer type questions where candidates are being asked to explain how they would achieve a solution. This is testing their abilities to explain the steps they would need to undertake to create the correctly placed image on the document

- (a) This part related to rotation of an image. The question stated that the picture had been changed to portrait from landscape. Some candidates however answered the question by repeating this rather than stating that it had been rotated.
- (b) This question was fairly well answered. Many candidates understood that we were looking for placing the image and wrapping the text around it. In order for candidates to improve when answering this type of question, they need to be clear in their explanation. The question asks what would a candidate do to achieve the result, so answers like copy the image are not going to achieve marks but expansions will.

Question 7

- (a) Many candidates managed to give some very good responses to this question. Candidates can improve on their answering of questions of this type by expanding upon their answers and giving more detail. The key word in response to copyright questions of this type is 'unauthorised'. For example, 'unauthorised copying or lending' will achieve marks rather than writing 'stealing documents' which is very vague.
- (b) Many candidates were able to give reasonable answers to the question. The answers we were looking for were the use of holographic stickers on products as they could not be copied, unique licence keys that have to be typed in etc.

Question 8

This question was looking at the possible invasion of privacy that devices create. Many candidates achieved at least two marks on the question. Other candidates need to expand on their answers in order to achieve the full range of marks. For example, many candidates wrote about the use of drones flying over houses, which is a valid point. In order to achieve more marks candidates need to expand upon this statement to explain why it invaded people's privacy.

Question 9

This question was fairly well answered. This question tested candidates' ability to understand the term video conferencing and what the drawbacks were of using it.

- (a) Many candidates were able to achieve at least a mark on this part of the question. We were looking for answers like video conferencing is used with the internet and uses live audio and video streaming. Some candidates still write about video conferencing involving making a video and then sending it to the other members of the group.
- (b) This part of the question was as well answered as the first part with candidates achieving at least a mark. In order for candidates to improve and achieve the full range of marks they need to expand on the points made as this was a describe question. For example, 'lip sync problems' would not achieve a mark on its own but expanding on the answer to explain lip sync would have ensured a range of marks.

Question 10

The question as a whole was fairly well answered.

- (a) There were many correct answers in this part of the question.
- (b) As with previous questions of this type we were looking for a step by step explanation of how the chart could be created. Candidates were able to achieve the bulk of the marks for this question.

Question 11

The question was fairly well answered.

- (a) This question gave password as an example of authentication techniques and asked for candidates to give three other examples. Most candidates were able to achieve a mark for this question with few repeating password as an answer. Giving an example in the question is designed to help a candidate. Some candidates wrote down three different types of biometrics but as biometrics is an example of one authentication technique, they limited their marks. Many good answers were given.
- (b) This question gave the candidates the opportunity to demonstrate their knowledge and understanding of a typical data protection act. Many candidates gave examples of the elements within an act but did not expand their answers to state the principle of a data protection act that this related to.

Question 12

This question gave candidates the opportunity to demonstrate their knowledge and understanding of interfaces. Some candidates produced good answers stating that CLI commands had to be learnt and typed into the computer. Other candidates need to develop their understanding of this topic. A number of candidates did not attempt this question.

Question 13

This question gave candidates the opportunity to demonstrate their knowledge and understanding of testing systems.

- (a) Many candidates were able to explain normal and abnormal types of test data and give good examples. Some candidates give incorrect answers relating to abnormal and extreme data, writing that abnormal data was outside the range, but extreme data was a long way outside the range. Those candidates that were able to give good explanations achieved very good marks.
- (b) Some candidates were able to explain live data thoroughly. Other candidates wrote that live data was data that was live in the system. Expanding this answer may have resulted in marks being achieved.

Question 14

This question gave candidates the opportunity to demonstrate their knowledge and understanding of viruses and key-logging software.

- (a) Many candidates understood that a virus was a piece of software that deleted data. Fewer candidates wrote about its ability to replicate itself.
- (b) Many candidates wrote that key-logging software copied the key strokes of the keyboard. Some candidates did not then go on to explain what happened to these recorded key strokes.

Question 15

This question gave candidates the opportunity to demonstrate their knowledge and understanding of using the internet.

- (a) This question was fairly well answered. Many candidates were able to give some good answers, stating that they could check with other websites/books. Other candidates wrote that the ending of a website address was important. Candidates can improve their answering of questions like these by expanding on the answers given in order to achieve the full range of marks.
- (b) This was the level of response question for the paper. Many good answers were given by candidates with some good expansions on the points made.

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/02
Practical Test A

Key messages

The requirements for doing well in this paper are:

- The ability to distinguish between the typeface categories of serif and sans-serif font types.
- Accurate data entry of text in bold on the question paper. This text must be keyed exactly as shown, including punctuation and capitalisation.
- Careful proofing techniques to identify data entry errors and ensure all data is displayed in full. Avoidable mistakes which could have been corrected if the work had been carefully checked meant that some marks were not achieved.
- The ability to create and apply styles to ensure consistency of presentation in different software packages.
- The ability to produce screenshots to capture the required evidence. Care should be taken when cropping and resizing screenshots to ensure important elements are still visible and the screenshot evidence is large enough to be read.
- The ability to insert merge fields into the master document whilst maintaining the existing spacing and punctuation.
- The ability to incorporate identification details so they are printed on each task. The question paper prompts candidates to include their name, centre number and candidate number on all tasks prior to printing. Without clear printed evidence of the author of the work marks cannot be awarded. It is not acceptable for candidates to annotate their printouts by hand as there is no real evidence that they are the originators of the work.
- Providing a printout of the Evidence Document towards the end of the examination time, regardless of whether the question paper has been completed. This document will contain supporting evidence which can substantially improve the candidate's mark and they should be trained to print this before the examination ends.

General comments

A number of candidates did not apply the correct typeface category throughout the paper. The font types serif and sans-serif will not appear in an installed font list as they are not font style names but are categories of font type with specific attributes. Candidates must be able to identify the different characteristics of these font types and select an appropriate font for the font type specified. An example of a serif font type would be Times New Roman and a sans-serif font type would be Arial.

Candidates are required to produce screenshots to evidence the ICT skills that cannot be assessed through the printed product alone. These screenshots must display the outcome of an action and not the process so for example, the saved word processing document must be seen in the file list within the folder– the 'Save as...' dialogue box is insufficient as it shows the process, not the outcome. Screenshot evidence is often too small and/or faint to be read. Some evidence such as the screenshot of the database formula used, were truncated so the evidence could not be assessed.

When creating paragraph styles in the document candidates should base this on the 'normal' or 'default' paragraph style to ensure that no additional formatting is applied. Extra formatting that has not been specified in the House style specification will mean that marks cannot be achieved so, for example, the font style *ALGERIAN* is a serif font style that displays all capital letters and this additional formatting would mean that marks could not be achieved unless all capital letters was specifically requested on the House style specification.



Candidates need to take greater care with the accuracy of data entry. There were a number of marks not achieved due to careless data entry errors including typographical errors, incorrect or missing character, omitted words and errors in punctuation and capitalisation. Candidates should check their data entry very carefully to ensure it matches the text on the question paper.

Report labels proved challenging for some candidates. Field labels/titles did not need to be included on the label with the data and those candidates that included them then found it difficult to match the layout of the fields shown on the question paper.

A number of candidates did not print all of the required tasks. Candidates should be encouraged to print evidence of instructed printouts as it is completed rather than waiting until the end of the examination time. It is essential that candidates print their Evidence Document towards the end of the examination time, regardless of whether they have finished the examination.

Some centres are still submitting stapled work which is not permitted. Hole-punching work and securing it with treasury tags or string is permitted but care should be taken not to obscure text with the punch holes. Several candidates did not achieve marks due to punch holes taking out characters in the database report headings resulting in missing letters in data entry which could not then be assessed for accuracy.

Candidates should submit all printouts and cross through any draft versions which are not to be marked. If multiple printouts are submitted without draft versions being crossed through, only the first occurrence of each page will be marked.

Centres should return the Supervisor's Report Folder with the candidates' work. This identifies the software used and can be helpful if issues were experienced during the practical test.

Comments on specific questions

Task 1 – The Evidence Document

An evidence document was created and used by most candidates to store screenshot evidence as required by the paper. Occasionally the screenshots were too small or faint to be read. A small number did not print identification details on the document so marks could not be awarded for these pages. A few did not present the evidence document for marking.

Task 2 – Document

Question 1

All candidates recalled the correct file and most saved it with the correct file name in the format of the word processing software being used. Some candidates resaved the file in RTF format and occasionally the file name contained typographical errors or was not capitalised as shown on the exam paper. Screenshot evidence of the save was often inconclusive showing the Save as... dialogue box of the save in process rather than capturing the outcome of the file saved. A screenshot of the folder contents after saving provides the evidence required. Most candidates retained the page setup settings as instructed.

Question 2

Two pre-set page breaks were to be removed from the document and this was not always done well. Weaker responses were characterised by inconsistent or no spacing where the page break had been removed or blank columns where neither page break had been removed. Some candidates joined two paragraphs together or did not retain '*Dangers*' as a subheading.

Question 3

Headers and footers were generally inserted and aligned as instructed. Occasionally the page number was keyed resulting in the number 1 appearing on all pages instead of automated page numbers which update on each page, and a few candidates omitted their centre number and/or candidate number from the header details. Where the automated file name and path wrapped to a second line this often aligned to the left margin instead of both lines being right aligned. Candidates who used the built in content control did not

always remove superfluous text or placeholders in the header and/or footer areas. A few candidates did not include a path with the file name and some displayed the field codes instead of the detail.

Question 4

The creation of paragraph styles to meet the House style specification was well done by the vast majority of candidates. The style names occasionally contained capitalisation errors. A few candidates set additional formatting within the style or based style on another named style which then inherited that style's attributes and as a result did not match the House Style specification. To avoid this each new style should be based on the default or 'normal' paragraph style. The font types 'serif' and 'sans-serif' were occasionally set incorrectly and several candidates incorrectly keyed 'sans-serif' into the font dialogue box which, as that font name does not exist, displayed the default font style. Screenshot evidence of the THM-Subhead style provided details of the settings created for this style and the formatting of all subheadings needed to match these settings. Occasionally screenshots were provided of the setting for the THM-Subtitle style instead of the THM-Subhead style. A few candidates continue to apply formatting to the text without using styles and did not gain any marks. A small number of candidates reproduced the House Style specification table, typing this into their document as it appeared on the question paper.

Question 5

The list of styles from the style manager/organiser provided evidence that the styles had been created and saved. It was not necessary to show all the attributes set for every style. Any screenshot that showed a list of these style names was acceptable although the style ribbon toolbar often truncated the names or did not show all 5 styles. Application of the styles was only awarded if there was evidence in the style list that the style had been created and saved.

Question 6

The title text was occasionally positioned below the subtitle text or contained spelling and/or capitalisation errors. Application of the title style was only awarded if the formatting met the House style specification and there was evidence that the style had been created and saved in the style list seen in **Question 5**.

Question 7

The subtitle text was provided in the recall document and most candidates correctly entered their name after this text and applied the subtitle style. Application of the subtitle style was only awarded if the formatting met the House style specification and there was evidence that the style had been created and saved in the style list seen in **Question 5**. Some candidates incorrectly inserted a line space after the subtitle which did not meet the House Style specification of 0 space after.

Question 8

Most attempted to apply the body style to the rest of the text in the document. Application of the body style was only awarded if the formatting met the House style specification and there was evidence that the style had been created and saved in the style list seen in **Question 5**. Occasionally inconsistencies in the style were found such as the serif font style and size not applied consistently, full justification not applied to all the body text and, more commonly, some inconsistent spacing after body text paragraphs. A 12 point space between the body text paragraphs and the list and/or table should be set automatically as part of the style and no space indicated that the body style had not been set or applied correctly. Proofing should be carried out to make sure that the styles have been applied correctly and spacing is consistent.

Question 9

The column widths and spacing between columns was generally done well. A few candidates displayed the entire document in two columns and a smaller number inserted the column break below rather than above the subheading. Occasionally a page break was inserted instead of a section break.

Question 10

Most candidates applied bullets to the list although some used the software's default round bullet style instead of formatting the bullets as squares. A few candidates did not select the correct text, including additional lines above and/or below the list.

Question 11

The bullet indent was not always set accurately with some candidates accepting the default measurement or indenting the text 1.5 centimetres from the left margin instead of the bullet. The list was often displayed with additional line spacing after each line.

Question 12

Candidates achieved this style application mark if the formatting applied to all 7 subheadings matched the settings shown in the screenshot of the THM-Subhead style seen in the Evidence Document (**Question 3**). This mark was only awarded if there was evidence that the style had been created and saved in **Question 3**. A few candidates inserted extra space after one or more of the subheadings resulting in inconsistent spacing that did not match the spacing defined for THM-Subhead in the House style specification.

Question 13

Most candidates located the correct file and imported the table to the correct position in the document. A few candidates did not import the heading with the table contents and some made changes to the imported data, perhaps due to incorrect automated suggestions given by the spell check software, changing 'USD' to 'USED', 'tonne' to 'tone' and 'Aluminium' to 'Aluminum'.

Question 14

The majority of candidates deleted the column correctly. A few deleted the cell contents rather than the entire column.

Question 15

The new row and data were generally entered accurately.

Question 16

Most sorted the data accurately but a few sorted only the *Metal name* column therefore losing the integrity of the data in the other columns.

Question 17

The formatting of the first row of the table was generally done well with the cells merged and the title centred over the five columns. Most formatted the row with a black background and white text although a few did not apply bold and/or italic enhancement to this text or used a serif font style. A small number applied the black background to the text only so it did not fill the cell. Follow through marks were awarded where candidates had omitted the title row from the import but had formatted the first row of their table to match the requirements.

Question 18

The table style was not always applied correctly or did not match the House style specification as not all data was centre aligned and occasionally there was space left after each row. Most printed all borders and gridlines. Most manipulated the column widths so the table fitted within the column although the data in the second row was not always displayed on one line.

Question 19

The correct image was imported although a few positioned this below the subheading *Tin Mining* instead of *Tawara Mining*. Some candidates unnecessarily inserted extra space below the subheading to accommodate the imported image and this resulted in inconsistent spacing after this subheading.

Question 20

Resizing the image was well done and most maintained the aspect ratio. Most applied text wrapping to the image and aligned this correctly.

Question 21

Where styles had been created and applied correctly the document conformed to the House style specification and was well presented. Spacing was usually consistent and the bulleted list and table were rarely split across columns or pages. Occasionally there was a widow or orphan, most commonly where a subheading had been left at the bottom of a column. The columns were not always aligned horizontally at the top of the page, usually where additional line spaces had been inserted.

Task 3 – Database

Question 22 and 23

The importing of the csv files and creation of primary keys and relationships between the tables were well done. The field names and data types were mostly set correctly although the date field was not always imported in the correct DMY format. Evidence of the relationship did not always confirm that a one-to-many relationship had been created as the screenshot was often captured during the process of creating the relationship rather than the outcome. A screenshot of the relationship dialogue box will evidence the relationship type. The relationship diagram will only be credited if it shows the single and one-to-many infinity symbols confirming the relationship type.

Question 24

The creation of a columnar data entry form using all the fields from the orders table was well done by most. A few candidates used a tabular rather than a columnar layout. Some candidates modified their form so the field headings were not always aligned to the left or displayed under each other. An appropriate form title was not always entered with many candidates leaving the default title which usually incorporated the table name 'N218...'.

Question 25

Most candidates used their data entry form to enter the new record and provided screenshot evidence of this. The new record sometimes contained data entry errors. Candidates were not awarded marks if they overwrote the first record in the database (THM0001) instead of entering this data as a new record. A small number of candidates captured the form with the wrong record displayed.

Question 26

The first report used fields from both tables and was done well by candidates who attempted this question. The report title occasionally contained data entry or capitalisation errors. The new field heading was usually entered accurately with only a few not achieving some of the marks due to data entry or capitalisation errors. Most used the correct calculation creating the *Gross_Value* by taking the *Order_Value* and adding 20% although a few added .20 to the *Gross_Value* or calculated 20% without adding it to the existing value. The search was based on three criterion with the most common error being the wildcard search on the *Pay_Type* field which selected records ending with 'Card' rather than containing 'Card' which resulted in the *Paycardo Wallet* records being omitted. The *Order_Value* search was occasionally set to *greater than 90* instead of *greater than or equal to 90* and a few candidates confused the greater than (>) and less than (<) operators searching for less than 90. Some candidates misinterpreted the instruction 'do not group the data' and deleted duplicate records with the same customer number. This is not the correct way to prevent grouping and resulted in the search result being incorrect. In some cases the report was grouped by *Cust_No*. Most included the correct fields in the report although these were often in the wrong order as, without manual intervention, the software placed the two sort fields at the start of the report. This can be avoided by setting the sort order in the report structure rather than during the creation of the report. Occasionally data in one or more fields was truncated and required some manipulation to ensure all data was fully visible. Most fitted the report to a single page wide and presented this in landscape orientation. The average calculation was done well but this was not always positioned under the *Order_Value* field. Currency values were not always displayed consistently with the same currency symbol and 0 decimal places. The screenshot to evidence this formula was often truncated so it was not possible to assess which field the average had been calculated on. Some candidates positioned this calculation in the page footer rather than at the end of the report which caused an error in the calculation and some used AVERAGE instead of AVG which did not work. The label for the calculation was not always to the left of the value and occasionally contained capitalisation errors and/or a superfluous colon.

Question 27

Most candidates who completed **Question 26** provided evidence of exporting the report as a text file. Either rtf or txt formats were accepted. A few candidates exported this report as a spreadsheet or database file. Screenshot evidence occasionally showed the save in process rather than the outcome of the file saved in the work area.

Question 28

The second report used fields from both tables to create address labels which a number of candidates found challenging. Some candidates did not attempt this question. The search was not completed well. Most correctly set the OR operator for the membership type but the membership date frequently included dates in 2015 instead of before 2015 and the '3 or more tin ingots' was often entered as ≤ 3 , $=3$ or <3 . Where the correct fields were displayed these were not always in the correct order with the sort field being positioned first. The presentation of the fields was not always as shown on the exam paper and some candidates did not leave a space between fields on the same line. Field labels were not required, but if present were ignored by examiners. Each label required a centred title in a bold, larger font size along with candidate details at the bottom of every label. These often appeared only once at the top or bottom of the page and the label heading often contained data entry and/or capitalisation errors. Landscape or portrait orientation was accepted although few presented the labels with 8 to the page in 2 columns with 4 rows.

Question 29

This question tested Assessment Objective 1 – Recall, select and communicate knowledge and understanding of ICT. Performance was better than in previous years with good responses given by most candidates and several achieving full marks. In **(a)** most were able to explain that the *Last_Name* field did not contain unique data or that some people may have the same last name. Answers to **(b)** did not always relate to data entry. In **(c)** a few candidates did not give the two most suitable fields for setting up as a list selection with some stating 'Town' although this would not be the most suitable.

Task 4 – Mail Merge

Question 30

The mail merge task was very well done with many candidates producing error-free work. The incorrect file extension .rft did not appear to cause any issues, an erratum was given out with the question paper, to ensure that the incorrectly listed file extension did not impact on candidates. Most candidates evidenced a field to display the date although some incorrectly used *CreateDate* or *SaveDate* fields instead of a today's date field code. The formatting of the date field as dd-MMM-yy was rarely correct with different separators used and several using one-digit for the day. Common incorrect formats used were d-MMM-yy and dd.MMM.yy. Screenshot evidence did not always show the formatting of the date field code.

Question 31

Most candidates correctly replaced the text and chevrons in the master document with the required fields. The most common errors continue to be not removing all the chevrons, deleting punctuation and spaces between the fields, and removing existing line spaces as the merge fields are inserted.

Question 32

Most candidates replaced the required text with their name. Some placed the header details in the footer or did not enter their full details including their centre number and candidate number.

Question 33

Reflecting the ingot image was generally well done and the master document printed. A small number of candidates provided no evidence of the master letter containing the merge fields and it was therefore not possible to assess whether mail merge had been used for this task.

Question 34

The merge selection was based on one search criterion and was completed well. Screenshot evidence of a tick box selection method did not provide evidence that an automated filter had been used. A few candidates continue to use 'find' or 'find in field' to select recipients at the printing stage which did not merge the letters.

Question 35

Almost all candidates merged and printed the letters as specified.

Task 5 – Presentation

Question 36

Most candidates successfully imported the 5 slides and presented each as a title and bulleted list. The first slide was accepted as a title slide or as a title with bullets. Marks were not awarded where incorrect software has been used with the rtf file opened, manipulated and printed in word processing software.

Question 37

Most candidates entered the master slide items in the correct position on the master slide so they displayed consistently on all slides in the presentation. A few candidates did not reposition the default placeholders so the slide numbers either appeared in the default position or were duplicated in the top left corner as well as the default position. Master slide items that moved or appeared in a different position on the second and subsequent slides could not be awarded marks due to inconsistency. Occasionally master items overlapped the data on the slides. Built-in slide designs can be used but often apply a different layout to slide 1 so candidates must ensure the design chosen meets all the master slide requirements.

Question 38

Most candidates produced a pie chart but the selection of data was not always accurate with candidates including additional data such as 'Rank' in the selection.

Question 39

A few candidates did not include the chart heading or this contained capitalisation and/or data entry errors, the most common being the omission of the word 'Tin'. Some candidates did not control the display on each sector with 'Rank' included, the country name omitted and percentage values instead of the production value displayed. A number displayed an inappropriate legend.

Question 40

Most candidates correctly identified the largest producing country and pulled this pie sector away from the other countries. A few candidates exploded the pie chart so all sectors were extracted.

Question 41

The pie chart was usually inserted on the correct slide but was often positioned below or to the right of the bullets. Occasionally the chart overlapped the bullet points.

Question 42

A number of candidates printed all slides as full-page slides instead of as handouts with 6 slides to the page. Most printed the 6 slides individually and then reprinted the single slide with the title '*Tin Mining*'. Occasionally the single slide did not fill the page and as a result the chart detail was illegible.

Question 43

This question tested Assessment Objective 3 – Analyse, evaluate, make reasoned judgements and present conclusions. It was not well answered with very few candidates providing an evaluative comparison of the two backup methods. A significant number of candidates simply described the backup system or focused on the advantages and disadvantages of a system without providing a comparison of the two. Better answers compared issues relating to the ownership of data, access to data, costs, capacity, equipment and

direct/sequential access. Candidates were required to recommend the most appropriate back up storage and most achieved this mark. If an alternative to the cloud or tape drive system was recommended some justification was needed to explain why. Some candidates did not attempt an answer to this question.

Task 6 – Printing the Evidence Document

Question 41

Some candidates did not submit a printout of the Evidence Document. It is essential that candidates print their Evidence Document towards the end of the examination time, regardless of whether they have finished the paper. Candidates should make sure that their screenshots are large enough for the evidence to be legible and that cropping/resizing has not removed essential evidence.

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/03
Practical Test B

Key messages

For this examination, the main key messages to note are as follows:

Candidates should develop a better understanding of the structure of an evaluation question, they should look for both positive and negative factors within their response, not simply produce a description.

Candidates must ensure that all spreadsheet formulae are fully visible and are printed in a font size large enough for an examiner to read without the use of magnification devices, removing excess white space at the end of columns can often ensure aid this.

Please ensure that candidates' work is **not** stapled.

Please ensure that you include an SRF with your candidates' work, as it can help examiners understand what software has been used and any issues that were experienced during the practical tests.

General comments

The majority of candidates attempted the question paper tasks, some candidates need to pay attention to the order of mathematical operations when producing spreadsheet formulae, to ensure that it produces the output that is requested.

The majority of candidates read and entered the items of data set out in the question paper, but many candidates need to take greater care with the accuracy of data entry.

Comments on specific questions

Question 1

This question was not well answer by many candidates; the concept of an evaluation which contains both positive and negative points did not appear to be the structure followed by many. A significant number of candidates simply described what each section of the stylesheet would do, rather than analysing its syntax and efficiency which were explicitly stated in the question. A full range of answers was seen to this question, from many simple descriptions to a few detailed analyses of the syntax errors and suggested methods of improvement.

Question 2

This question was attempted by most candidates with varying degrees of success. Despite few candidates creating good evaluations, many gained some marks on this question by recognising and correcting the missing # to denote the hexadecimal numbers and the incorrect order (should be RGB) of the colour elements within the two border colours. It was surprising how few of these candidates had described these errors in their responses to **Question 1**. The application of text colour for style h1 was completed successfully by many candidates but few recognised or corrected the vertical alignment of text within the table which was set to 'center' but should have been 'middle'.

Question 3

This step was completed well by many candidates. The results varied generally on a centre by centre basis. Candidate responses suggested that some centres did not appear to have taught the web development layers. Where candidates performed well, a significant number identified the answer to part (b) as the behaviour layer rather than the content layer.

Question 4

Most candidates who showed evidence of their web page had structured it as specified in the question. A few submissions created the structure but not the specified sizes and a small number of candidates included the reference letters used within the question paper to help candidates to identify the cells.

Question 5

This step was completed well by a number of candidates, but many did not save the file into .png format. A number of candidates submitted evidence of files with names like 'sslogo.jpg.png' where they had saved the file with two different file extensions. Not all candidates removed the white corners of the image, but almost all candidates placed their image in the correct table cell. Many candidates set the table width to 100 per cent which overrides any subsequent attempt to set the width to 810 pixels as specified in the question paper.

Question 6

The majority of candidates completed this whole task as specified, but a few did not set the image to the specified 600 pixels square.

Question 7

Many candidates added the text in the correct cells, although there were a significant number of typographical errors in the text. Some candidates appeared to omit the instruction to set this text as style h1.

Question 8

Most candidates attached a stylesheet to their web page, fewer used the stylesheet they had saved in step 2, often attaching the original n183tablestyle.css file or both stylesheets instead.

Question 9

A surprising number of candidates did not display their web page in a browser with the address bar fully visible so that the text could be easily read. Most did display the whole page. A few displayed the page in editor software in design view.

Question 10

This question was completed as instructed by most candidates.

Question 11

The centre aligning and merging of cells in row 1 was completed with accuracy by most candidates, although fewer entered the text with 100 per cent accuracy; an omitted apostrophe being the most common error although 'Steeel' and 'Sheeds' were seen along with a variety of unusual spellings of Sheila. Many candidates edited the row heights in 2,3 and 5 but not all of these wrapped the text in row 3 as shown in the diagram. A surprising number of candidates did not italicise the contents of rows 3 and 6. The candidates needed to examine the sample layout and match their product to what had been shown.

Question 12

Most candidates completed this as specified but some candidates erroneously used ranges rather than single cell references or included additional inappropriate functions such as SUM. In some cases candidates used a ROUND function to change the display format of this and sometimes subsequent cells, but by including this function, it changed the returned value and all subsequent functions that relied upon this cell also returned incorrect values.

Question 13

A number of candidate responses lacked, or incorrectly placed, brackets around the 'Apex height + Wall height' which resulted in returning erroneous values for the cubic capacity.

Question 14

Many candidates completed this question well, with a variety of responses that included the use of the SQRT(...) function, POWER(...,0.5) or (...)^0.5 to perform the square root element. A significant number of candidates chose to set the power to $\frac{1}{2}$ which was fine if the $\frac{1}{2}$ was placed within brackets, but due to the order of mathematical operations gave an incorrect returned value if brackets were not present. For the squaring sections either the use of (...)^2 or POWER(...,2) were frequently seen. Some candidate responses omitted the use of indices, squaring or square root and attempted to complete the formulae without these. A number of other incorrect responses included the use of the EXP function.

Question 15

This question was completed as instructed by most candidates who attempted it.

Question 16

Many candidates completed this question successfully although there were many who did not set the reference to cell A4 as an absolute cell reference.

Question 17

Many candidates completed the multiplication part of this question successfully although there were many who did not set the reference to cell B4 as an absolute cell reference. The rounding element of this question was not well answered by many candidates; many candidates used the ROUND function without adding 5 to the total; or rounding using 10 as the final parameter rather than -1. There were some creative answers using functions like MROUND, often incorrectly and CEILING. These functions were generally above level for this syllabus and few candidates who attempted their use did so correctly.

Question 18

Many solutions using IF and an AND function or nested IF statements were seen, many giving correct responses. A number of those who included nested IF statements did so using incorrect logic such as: =IF(G7>14,"Extra Large",IF(F7>7,"Extra Large",""))

Question 19

Most candidates completed this as specified, although as mentioned in **Questions 16** and **17**, the incorrect use of absolute and relative cell references meant that some candidates could not easily replicate the formulae and some attempted to manually adjust each cell reference which proved a very inefficient solution.

Question 20

Many candidates did not ascertain whether the data was length, area or capacity so did not apply correct formatting to cells. Most recognised the currency values although a small number of candidates ignored the instruction about setting these cells to dollars with 2 decimal places.

Question 21

Although most candidates produced the printout as specified, there were a number who did not enlarge the column widths so that all the formulae could be seen and therefore available for marking, contrastingly some others did expand the columns, but too much so the formulae became so small it was not possible to view the formulae even using magnification devices. Many candidates did not include row and column headings in this printout.

Question 22

Almost all candidates completed this step as specified.