INFORMATION AND COMMUNICATION TECHNOLOGY

Key messages

A wide variety of questions were offered to the candidates covering many aspects of ICT theory from simple hardware identification to the more challenging application of ICT such as in databases and advanced data communications. Candidates that read the question thoroughly and planned their answers resulted in more thorough answers being given. Candidates who performed well in this paper gave answers that expanded upon points made. They also gave a justification of the statements and discussed the arguments for and against.

Candidates must give the generic names for software rather than the brand name. There has been an increase this series in candidates giving brand names for hardware and software rather than the generic names. 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.’

Candidates are reminded that if they continue their answer beyond the given answer space, or use additional space to write a replacement answer, they should clearly indicate in the original answer space where to find the additional writing or replacement answer.

General comments

Candidates are reminded that as stated on the front of the question paper that correction fluid must not be used, the use of correction fluid sometimes leads to the replacement answer becoming unclear.

There has been an increase in the number of candidates that ignore the rubric of the paper and give more answers than required and therefore could not be marked.

Those candidates that used a table or a line down the middle of the answer and listed advantages and disadvantages in separate sections when answering the discussion questions produced many repeated or shortened answers. This method of answering the questions can result in missed points as comparisons are difficult.

Some candidates did not attempt all questions, candidates are reminded to attempt all questions, as an attempt may match some of the mark points, whereas no answer is going to gain zero marks.

Comments on specific questions

Question 1

The question as a whole was well answered with candidates gaining slightly better results on part (a) than part (b).

(a) This part was well answered with most candidates gaining the two marks. When candidates got the question wrong, they tended to mix up questions 1(a) and 1(b).

(b) This part of the question was also well answered with many candidates gaining the two marks. Very few candidates failed to gain a mark on this question. However, those that did produce incorrect answers tended to write memory stick as the answer.
Question 2
Many candidates gained full marks on this question. However, some candidates thought the internet was more likely to be monitored.

Question 3
This question was generally well answered with many candidates obtaining two marks. Many of the correct answers gave examples of diagnosis systems especially medical. Common errors were with answers that were not accurate enough for example answering garage or health rather than car engine fault diagnosis or patient diagnosis. There was an increase in the number of candidates giving alternative answers about animal and plant identification. Some candidates simply gave examples of other games.

Question 4
This question was fairly well answered with many gaining full marks on part (a) but not doing as well on part (b).

(a) This part was very well answered with very few candidates failing to gain full marks.

(b) This part of the question was not as well answered as part (a) although many candidates managed to gain at least a mark mostly for more portable. As with other questions of this type, some candidates did not gain marks due to not being detailed enough in their answers.

Questions that ask for advantages and/or disadvantages are comparison questions whereas questions that ask for benefits and drawbacks are not. There were a few candidates who gave statements like portable but without the comparison and therefore even though they appeared to know the topic they did not gain the mark.

Question 5
The question as a whole was fairly well answered with most candidates being able to gain half marks for the whole of this question.

(a) Candidates were able to get most of the marks for this question and there was a large number who gained the five marks available. As with other questions some candidates failed to give enough detail to their answers or simply described the formula in words without referring to ranges or cell references. For example, explain the column index’s role in the formula by stating that the data came from the second column (which could be column B) rather than the second column in the range. Many candidates broke the formula down into its parts and this was acceptable but some candidates simply explained the formula verbatim for example if A2 is greater than and less than “ ‘ rather than if A2 contains a value; which was given by the better candidates. Those candidates who did not explain the role of the formula but gave explanations for the range, the index and lookup value gained marks as the examiners gave benefit of doubt on this occasion.

(b) (i) Most candidates were able to gain a least a mark on this part of the question. However, some candidates did not know what a named range was let alone why it should be used. There were some good answers given to the question but some candidates filled the answer lines with one point rather than the three available for the question. It is important to remember that a three mark question needs three distinct points made to achieve the marks.

In trying to describe the advantages of using a named range, the words ‘easier’ or ‘easily’ appeared many times. This word should be avoided in an examination answer. It might be quicker to type in a name rather than a range complete with colons and $ signs, but it is never ‘easier’ as that is completely subjective.

(ii) Some candidates gave a suitable name for the range. Most candidates fell into the trap of using a phrase, which would not have been accepted by the software because it contained a space. Some used very obscure names that did not give any indication of what the range did. The question asked for an appropriate name.
This part was well answered with lots of candidates gaining the two marks. The examiners allowed answers that stated that the number of Es within the range had to be counted, as well as writing the description of counting candidates opting for ICT. Weaker responses included the wrong assumption that the E was a grade.

**Question 6**

This question was fairly well answered as a whole, with part (b) gaining the most marks.

(a) This question should have been a simple three mark question but many candidates did not know what was expected of them for this question and used all sorts of connectors and therefore gained no marks. Those who attempted the question correctly (with / or \ as connectors) very often only gained one mark as they missed the / before Work and the / after Examination_Marks. Some candidates went on to try to add a document name but this was ignored although the candidate gained the Examination_Marks part of the answer as a connector was added.

Some candidates did not attempt the file path and wrote down a description of following a path. A few candidates lost marks by carelessly mis-spelling the folder names.

(b) Most candidates were able to gain marks for writing down text and rich text as the two answers. However, in giving the correct answer there were a great deal of references to brand named software which does not gain credit.

(c) As with part (a) a lot of answers related to brand name software which does not gain credit. Candidates knew that .txt meant text and .rtf meant rich text format but had difficulty with the differences between them. Most marks were gained for reference to formatting and no formatting and a few gained marks for mentioning memory size and different types of formatting like images. There was a lack of detail in some of the answers relating to less memory being occupied.

(d) Most candidates were able to gain at least mark on this part of the question. As a result, the question was quite well answered with the better responses clearly explaining the reasons instead of just stating e.g. ‘saves time’ which was too vague. It is important to give detailed answers as this ensures marks can be awarded. Reading back an answer is often a good way to discover if something sensible has been written rather than noting that the answer space has been filled. Where the question was read correctly the most common answer was saving time only typing one document instead of many. Some candidates confused the question with emails and gave responses referring to the sending of emails.

**Question 7**

Most candidates were able to gain about half marks on this question as a whole.

(a) This question was thoroughly answered with many candidates filling the response area. However, as a result of this parts (a) and (b) became blurred. It was generally well answered, many candidates gaining four or more marks. The most common answers were unique, always with you and examples of different biometrics. Some candidates gave excellent answers but then failed to give examples and therefore did not achieve full marks. The only common misconception being that biometric data is impossible to forge.

(b) This question was well answered although some candidates included answers for this part of the question in part (a) and hence then did not get many marks. The examiners allowed answers like the face changes with age even though this was a laptop and may not be used for long. Many correctly stated facial hair and poor lighting were ways the system could not operate.

**Question 8**

This question was fairly well answered with some good answers given.

(a) Most candidates gained at least one mark for this question referring to multiple and single tables. However only a few gained the second mark. Some candidates referred to databases or files rather than tables and therefore did not gain credit. It was good to see better responses who gave brief and well described differences.
(b) Many candidates gained at least half marks for this question even though sometimes their responses did not follow any logical order. The main marks were awarded for mentioning creating relationships, setting a primary key and opening/saving the database. Many candidates wrote about brand named software rather than stating it was a database. Some candidates misread the question and stated how to create a database. A few clearly understood the process but failed to describe the steps in detail.

In better responses the steps were described which could have been followed, weaker responses did not describe the steps and gave vague comments e.g. ‘then make the link’. Those candidates who had a reasonable knowledge of databases were able to provide a reasonable answer to this question. Some candidates seem confused by this question and gave answers that were not steps but a general description instead.

**Question 9**

Nearly all the candidates gained full marks for this question. For those candidates that only got 3 marks the most common mistake was for ‘an additional space between facing pages’.

**Question 10**

Most candidates were able to produce some good points in this question as a whole.

(a) Most candidates were able to gain at least a mark for this part of the question with most marks being gained for cellphones rather than VoIP. However, answers tended to be too vague or they mixing up cellphones with smartphones. Most marks gained were for the generic answers about portability and using for voice calls. Common correct answers were about the use of the internet for VOIP. Many talked about call quality, or hacking which was not appropriate to the question or they were too general i.e cheaper but did not relate this to the cost of international calls.

(b) Many candidates were able to get this mark but one of the strange responses included gold or jewel transfer. Some candidates wrote about online shopping or cheques. Cheques can be transacted online nowadays. Some candidates correctly identified cash but gave a one word answer or stated cash transactions which did not have enough detail.

(c) This was as well answered as other parts of this question. It appeared that candidates had misread the question and ended up ticking the opposite boxes to what was required.

(d) Most candidates gained at least a mark for this part of the question. The major issue with this question was that candidates kept repeating the same point for example saving time travelling to the bank. Most common answers not travelling so saving time and cost but too many did not relate it to the scenario so just said saves time or cost so gained no marks. Some candidates did not understand the three in the question and wrote answers like ‘saves time and money by not travelling to the bank’, thus losing the second mark they might have gained if they had written the answer on two lines.

(e) The main marking point for this question was about internet connection not being present or not stable and lots of candidates gained one mark for this. The main incorrect answer was to do with hacking (without any mention of using hotspots). Candidates gave acceptable answers but failed to link it to the scenario and therefore failed to gain the mark.

**Question 11**

Most candidates were able to gain a least two marks for the question but there was a issue in that many candidates failed to read the question fully and answered relating to the advantages and disadvantages of robots rather than their effect on employment. The examiners were quite generous with the answers given for example robots work 24/7. Many candidates mentioned the changes to the working environment (job sharing, compressed hours etc.) but did not say that they would increase. Some candidates correctly explained that jobs would be lost but failed to explain what these jobs would be. It was also a discuss question and candidates need to provide comparative answers rather than statements.

**Question 12**

Most candidates were able to gain about a third of the marks for this question as a whole.
(a) Most candidates gained at least one mark for this question with the answer about the address starting with HTTPS and not HTTP. A few candidates mentioned digital certificates or SSL. Some candidates wrote about the number of adverts, when the site was last updated or whether it ended with .gov or similar and therefore failed to answer the question. Some candidates gave a drawing of a padlock, but we do not accept drawings as an answer unless the question clearly states they are to produce a drawing.

(b) This question was challenging for many candidates who gained at least two marks. Many candidates answered the question in general terms and missed out the technical language. As with previous questions there were many answers that lacked detail for example ‘unknown emails’, ‘inappropriate websites’ and ‘dodgy links’.

Pharming was often confused with phishing. Most gained the marks for identifying both are ways of obtaining personal information. Weaker candidates mixed up smishing with spam or smishing with emails. This question was a compare and contrast question where the answers must refer to similarities and differences. Candidates do well on the differences but missed out the similarities and therefore failed to gain full marks.

**Question 13**

Most candidates were able to gain good marks on this question especially part (b).

(a) Most candidates gained at least two marks for this question. Some candidates scored highly and generally this was probably one of the best answered of the longer questions in the paper. Many gained marks for mentioning adding videos/animations, making it more interactive, adding hyperlinks and that paper leaflets could be thrown away unread. A number mentioned ecological benefits of not using paper but failed to mention printing costs. Some believed the presentation would be distributed via the internet, rather than presented in a location as the scenario had stated.

(b) Most candidates were able to gain at least three marks for this question. Again it was not always in a logical order but they were able to gain different marks for things like opening the presentation (even though they still used PowerPoint instead of presentation within their answers), importing the image, selecting the correct slide and saving the presentation. The answers given by better candidates could be easily followed to add the image to the slide.

(c) Surprisingly well answered with many candidates gaining at least one of the marks. The main marks were awarded for the file extension not being supported and the image in the wrong folder. Some candidates seemed to understand the purpose of alt text but could not explain sufficiently why it might appear. A few decided that there was an error in the html code provided.
INFORMATION AND COMMUNICATION TECHNOLOGY

Key messages

Candidate performance covered the full range of marks, mainly between ten and the mid-seventies. Candidates were able to approach all skills tested in the paper. Care with entering given text exactly as given (in bold type in the examination paper) and observing spacing and punctuation in a mail merge letter setup is important. Distinguishing between serif and sans serif fonts is a problem for some candidates. Candidates should check their selection criteria if database reports are longer than two to three pages, as this will almost certainly be the result of selection errors. Reports are designed to fit either on one page or no more than two to three. When required to add features to data entry forms or presentation master slides, there must be clear evidence for an examiner to observe the features that have been applied in order to award marks. These features must be more than the defaults for the software or the results of running a ‘wizard’ to create a form.

General comments

To improve performance in this examination candidates must be able to distinguish between the typeface categories of serif and sans serif font types. These are categories of font type with specific attributes and not the actual names of font styles. Candidates must be able to select an appropriate font style for the font type specified. Some centres have reported that they do not have a font style called ‘serif’ installed on the computers. As typeface categories the font style names ‘serif’ and ‘sans serif’ will not appear as an installed font.

Text to be entered by the candidate as part of a task is displayed in bold on the examination paper. Marks are available for accurate data entry of this text which must be keyed exactly as shown including punctuation and capitalisation. Candidates are advised to check this data entry carefully as common errors on this paper included incorrect capitalisation, incorrect or missing characters, omission of spaces, truncated headings and additional punctuation.

Candidates are required to produce screenshots to evidence the ICT skills that cannot be assessed through the printed product alone. The screenshot evidence needs to show the outcome rather than the process so, for example, save evidence needs to show the folder contents with the saved file listed. Many candidates screenshot the ‘Save as’ dialogue box which shows the save in process but does not provide sufficient evidence that the file has been saved. Candidates should check each printed screenshot to ensure it is clear and large enough to be read. Where examiners are unable to read the materials presented, they cannot award the marks.

Each task instructs candidates to enter their name, centre number and candidate number. A small number of candidates are not following these instructions and submitting work for assessment without identification details. Without clear printed evidence of the author of the work, examiners were unable to award any marks for these pages. It is not acceptable for candidates to annotate their printouts by hand with their name as there is no real evidence that they are the originators of the work.

Candidates should be encouraged to print evidence 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 all tasks in the examination paper. The document will contain supporting evidence which can substantially improve the candidate’s mark and they should be advised to print this before the examination ends.
Comments on specific questions

Task 1 – The Evidence Document

This question was completed well by most candidates. Occasionally some screenshots were too small or faint to be read. A small number of candidates did not present the Evidence Document for marking.

Task 2 - Document

Question 1

All candidates opened the correct source 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 was not capitalised as shown on the exam paper. Screenshot evidence of the save was often inconclusive showing 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.

Question 2

Header and footer items were usually created accurately, but not always aligned to the margins as specified. This was particularly true of the file name and path which, if long, was often observed to be left aligned when extending to more than one line. Sometimes the date was incorrect suggesting that it had been typed in incorrectly (or maybe the date settings were incorrect for the machine, although this could be compared with other date evidence in the document). Page numbers sometimes did not increment with the pages, suggesting that they were not automated.

Question 3

In this document, paragraph styles had already been applied and no new styles had to be created. The candidate had to compare the styles used in the document with the ‘house style’ specifications and identify any that did not match these. There were three styles that needed to be edited in some way, and these were often identified correctly and screenshot evidence of amendments provided. When more than one paragraph style dialogue box is presented, these must be shown to be connected in one screen print to show that the sub dialogue box refers to the specified style.

Question 4

Editing the document layout to two columns was generally accurately applied. These errors were apparent in some documents: change applied in wrong place, change not applied right to the end of the document, gap between columns not set to 1 centimetre.

Questions 5 and 6

The specified image was usually placed and resized accurately. Errors in alignment relative to the text, exact positioning within the document and resizing to half the column width with no distortion of aspect ratio were all observed errors.

Question 7

An existing table within the text was to be formatted as per the illustration in the paper. The activity was generally well executed. Common errors included the top row text not centred over the five columns on the right, text not rotated or aligned as shown, the table not fitted within the column and the gridlines not bold when printed. Rarely observed was splitting of text when column width was adjusted.

Question 8

A vertical bar chart was usually selected as specified. The selection of data was not always correctly made and not limited to the two regions. Data entry for the two axis titles was not always accurate, although the title for the chart usually was present and accurate. Data values were not always displayed on or above the individual bars.
Question 9

There were two clear spelling errors which a spellchecker should have picked up. A number of candidates missed these. Proof reading and document organisation presented a challenge in this paper. Many candidates did not observe that the lists, especially the first one, would split over the page or column if they took no action. As styles had been applied to the document, consistency of spacing should not have been a great problem, but may have derived from incorrect style editing, etc.

Task 3 – Database

Questions 10 and 11

The two tables were usually set up accurately with many candidates remembering to set the telephone number field as text. Most candidates were able to identify the most appropriate field as the primary key. In the engineers table most candidates chose the correct field as the primary key. The three boolean fields were usually set correctly, but not always set to display Yes/No in the report.

Question 12

A data entry form was usually created. Often the form produced was the unedited result of using a form ‘wizard’. Some evidence for making the form ‘user friendly’ was expected, such as a meaningful title, user explanations, or clear field titles. Navigation buttons were also sometimes applied. A new record was to be shown on this form, and this was usually, but not always, accurately entered. An entry on a data table row was not what the question specified.

Question 13

Evidence for this relationship had to confirm that it was one-to-many, for example, by the inclusion of the appropriate dialogue box or the one to infinity symbol if referential integrity had been applied.

Questions 14 and 15

Two reports were generated and presented in defined formats.

The first report layout presented the challenge of fitting quite a number of fields and their titles into one page wide and presenting them in a specific order. The selection of one specific date was not a problem except for a number of candidates whose selection only returned 2 two records. This may have been the result of import error (specified as DMY order). A run-time calculation gave the sum of all prices charged within the report. This was to be formatted in currency as already displayed for other currency instances. The calculation formula used was checked in the evidence document. Candidate identification had to appear on every page of the report.

The second report was not in evidence as frequently as the first. When presented, this report was generally well done. The selection was based on multiple criteria, while the sorting of records was based on one field. A calculation to count the number of records was checked from the formula in the evidence document. Presentation of the fields in a specified order was sometimes not made as the field sorted was often out of place.

One or both of these reports were quite frequently omitted.

Task 4 – Mail merge

Questions 16 to 18

This activity was frequently completed with no errors. In the master document, some candidates missed space before or after fields or lost punctuation from the original text. Evidence for the automated date field was shown in the evidence document. Selection of the two regions was usually correct, but evidence was required of an automated method of making this selection. When printed, the correct three letters were usually present.
Task 5 – Presentation

Questions 19 to 24

The presentation was created as five slides with a title and bulleted text layout. Candidates had some freedom to design a master slide illustrating at least four design features. Many applied a theme template, or inserted lines or shapes. Some provided evidence of applying animation or transitions.

It should be noted that evidence for these should relate to the slide or slides to which they are applied. The first slide layout was changed to title and subtitle with no bullet point and aligned to the centre of the slide. Candidates using a template may have needed to override the layout of the template to achieve this as also to make slide layout consistent for all slides. Making accurate presenter notes and applying to the correct slide were a challenge to many candidates. Printing this slide only and all slides in the specified layout was achieved by many candidates.

Task 6 – Printing the Evidence Document

It is important that the candidates leave themselves enough time before the end of the examination time to print this document at whatever stage they have got to in the examination. It contains significant evidence to contribute to overall marks achievable as described within this report. Most candidates did print this document.
INFORMATION AND COMMUNICATION TECHNOLOGY

Key messages

For this examination the main issues to note are:

- Candidates need to follow the question paper in terms of case when entering text.
- Candidates need to follow font styles and enhancements when formatting text in the spreadsheet.
- Candidates need to show evidence of the cells the conditional formatting has been applied to.
- Candidates must make sure that all spreadsheet formula are fully visible and in a font size that can be easily read without the need to use magnification devices when printed.

General comments

Candidates’ work should not be stapled. A hole punch to tie the work together with string is acceptable but often the holes are through some of the evidence the examiners need to see to be able to award marks.

Please make sure a Supervisors Report Folder is completed and included with the candidates work as this can help examiners know the software that has been used and any issues that were experienced during the practical test.

There were significant differences in the range of results from centre to centre and from candidate to candidate within centres. The paper gave a good spread of marks and candidate errors were spread evenly over the sections of the paper.

Comments on specific questions

Question 1

Most candidates applied the formatting correctly although some candidates incorrectly used a sans serif font instead of a serif font for rows 1 and 3, and did not place a border on merged cells B3:C3 and did not apply bold and/or centre aligning text in row 5. Where row and column headings or gridlines had not been shown it was not possible to see that row heights had been reduced for rows 2 and 4.

Question 2

Most candidates placed their name, centre number and candidate number in the correct position in the header of the document and the correct footer text with automated date centred in the footer. A few candidates did not include the header details in the order stated in the question paper. Many candidates did not precisely copy the text in the question paper for the footer and added a colon after the word ‘on’.

Question 3

Most candidates included the correct VLOOKUP function for looking up the wreck name from the correct range $A$3:$B$23. Some candidates included cell $A$1 in the range. A few candidates used an .xls file and not the original wreck.csv file for the array.
Question 4

Most candidates included the correct VLOOKUP function for looking up the depth of the dive from the correct range $A$3:$C$23. Some candidates included cell $A$1 in the range. A few candidates used an .xls file and not the original wreck.csv file for the array.

Question 5

Most candidates replicated both formulae as instructed.

Question 6

Candidates did not achieve all of the marks on this question as they did not follow the case of the text as given in the question paper. Many missed the space after the comma before the word ‘second’. There were several occasions where candidates had used the formula B8>C8 rather than B8<C8 which resulted in ‘Unsafe, second dive is deeper’ if the dives were the same depth. Where candidates were unsure how to complete this formula, the text had been entered into the cells which did not gain any marks. The evidence provided to show that conditional formatting had been applied to the merged cell was often incomplete. Many candidates provided screenshots of the formatting dialogue box only, but did not provide evidence that this was applied to merged cells B11:C11.

Question 7

A few candidates printed the complete spreadsheet not the specified range. The row and column heading were frequently omitted from the printout. Most candidates printed the spreadsheet with the contents of the cells fully visible. Where the printouts are not fully visible candidates did not achieve marks for those parts of the formula that cannot be seen.

Question 8

Most candidates completed this correctly. Some candidates displayed row and column headings.

Question 9

Most candidates completed this correctly.

Question 10

Most candidates were able to display the contents of the folder with the correct evidence displayed. A few candidates did not name the folder as specified in the question paper. Some candidates cropped the image which cut off the name of the folder. Some candidates did not display the dimensions of the images.

Question 11

Many candidates created the table to look similar to the question, but a significant number did not include the dimensions for all the relevant cells within their table structure. Some candidates set the table width to 100 per cent (or other percentage) and not 1000 px as specified in the diagram. Whilst WYSIWYG packages are acceptable, candidates must be able to edit the HTML to ensure that their web page structure meets the question paper requirements.

Question 12

Most candidates were able to place the image correctly. Some candidates did not maintain the aspect ratio of the image when setting the width to 1000 px.

Question 13

Most candidates placed the correct images in cells B and E. For cell C candidates often used tags that could not place the video clip as specified with automated text-based error message. The most successful candidates used the video tag, followed by the error message and then the source tag to complete all parts of this as specified on the question paper. An example of this syntax can be found in the mark scheme.
Question 14

Many candidates did not follow the case as given in the question paper or omitted the exclamation mark.

Question 15

Many candidates omitted the full stop from the first line of text and/or included a colon after the word ‘by’ on the second line.

Question 16

Most candidates were able to complete this successfully.

Question 17

Some candidates included inappropriate alternative text such as ‘image not available’. Alternative text should provide relevant information about the image if this is not able to be displayed in the browser. Some candidates did not include the alternative text for the logo at the top of the page.

Question 18

Most candidates included the stylesheet correctly. Some candidates included file paths which would not work when the web page was placed on a different computer unless it had an identical file/folder structure for these files. Some candidates overwrote the styles by using automatic inline styles within the HTML. This may be the default settings of the editing software, but candidates must be able to edit the HTML to ensure that styles are not overwritten.

Question 19

This question required the candidates to amend a stylesheet. Some candidates added the comment at the end of the stylesheet rather than the start. Many candidates did not include the td selector for the padding and gridlines.

Almost all candidates printed the Evidence Document. Most candidates included screenshot evidence of the browser, stylesheet and the HTML source. The screenshot of the browser window did not always show the whole of the web page with the address bar visible and a few printouts were from web authoring packages rather than a web browser. For the HTML source, there were a few screenshots of the link to the source, but most candidates including the actual required mark up.