INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/12
Theory

Key messages

In this paper some of the topics had not been set previously whilst others have been seen several times. There were fewer candidates that failed to answer the questions although the answers were not perfect. As with previous series some candidates still use brand names rather than generic names, for example brand names for spreadsheets, databases etc. If a candidate writes spreadsheets use formulas it achieves a mark, but MS Excel uses formulas does not. This series there was an increase in the number of candidates that missed the top line of the answer lines only to write below the answer lines to finish answering the question or even using the blank page to finish answering the question even though this may only be a couple of words.

It is important that candidates read the question carefully before answering it as marks are awarded for answering the question that has been set. It is also important not to repeat the question in the answer as this also achieves no credit. Many candidates use rote learning, but scenarios and topics change every series as do the question type set, therefore candidates may rote learn one type of question only to be faced with another type in the actual paper. Candidates who performed well in this paper used specific and detailed language when replying to 'describe', 'evaluate' and 'discuss' type questions. The number of discussion/describe/compare type answers where candidates split the answer into advantages and disadvantages has reduced in this series, with only a few centres using the technique. This type of layout does not give enough scope to achieve high marks.

Some candidates wrote detailed, long answers but did not answer the question fully. It is important that the expansion to the answer relates to the answer that was given. Candidates should check back as they answer the question to ensure they are still on topic and that they have not inadvertently repeated elements of the question in their answer.

It is also noted that most candidates attempted to answer all the questions. With only a few not attempting to answer questions.

General comments

The paper gave all candidates an opportunity to demonstrate their knowledge and understanding of ICT using a wide variety of topics.

When a question indicates a specific number of answers, candidates should only write one answer in each allocated space as first answer written is the only one that is marked, correct or incorrect, for that space. Any extra answers placed below the numbered responses are ignored.

Candidates need to be clear in the answers given rather than using basic statements like it is quicker. A good rule of thumb it to add 'because' and then give a valid reason. All answers on the paper should relate back to the question being set.

There has been an increase this series with candidates needing to expand their answers on to other parts of the examination paper, although the blank pages tended not to be used. Some candidates use this extra area to write one or two words that could have been written below the actual answer given. It is important that if this occurs the candidate clearly writes where the extra part is written and writes the question number on the extra work. Some candidates show rough working outs on the paper but in many cases, these are not crossed out.

Comments on specific questions

Question 1

Most achieved both marks for this question and there were very few this series that circled more than two answers.

Question 2

Many of the answers given in part **(a)** related to the use of the software rather than describing the software. Some candidates gave brand names in their answers rather than generic names; brand names achieve no credit.

(a) (i) Most candidates achieved at least one mark for this question, by answering that formulas or calculations were used. Candidates that answered the question well clearly identified how data is stored in rows and columns and gave a clear use of a spreadsheet.

(ii) As spreadsheet software and database software are similar some candidates mixed them up and even though the answers were good, they were for the wrong software. This question was about database software rather than just relational databases. Many candidates gave good uses of the software stating that queries and reports could be used. Some candidates clearly stated how data was organised. Some candidates misread the question and wrote in great detail on the difference between a flat file and a relational database which achieved no credit.

(iii) This was a challenging question although some candidates were able to achieve the two marks available for this question most by stating it was an application and clearly stating that it carried out one specific task. Many of the answers given were not specific enough.

(b) This question was well answered with many candidates achieving at least one mark. Some candidates achieved the three marks that were available for this question. But as with the previous question some candidates gave brand names for the operating systems therefore achieving no credit.

Question 3

Expert systems tend to be a difficult topic for many of the candidates, and this question was no exception to this. In this question we asked for a full explanation of how an expert system produce a diagnosis to a problem. Part **(b)** asked for an explanation of how an incorrect diagnosis could be produced.

(a) The question asked candidates to explain the process of the use of an expert system many found it challenging. Some candidates repeated parts of the question stem in their answers, namely ‘producing a diagnosis of the problem’. Most candidates achieved at least one mark for stating that the questions were displayed on the user interface. For those responses that described the process of searching the knowledge base the full four marks were easily accessible with many giving more credit worthy points. It was good to see the clear description of the knowledge base being searched using the rule base. Those candidates that did well in this question made it clear that questions are asked by the system then answered by the user and achieved the extra mark for stating they answered are yes or no. The way the answers where structured candidates could achieve full marks by explaining how the data was collected or how the data was processed.

(b) This was a new question and asked candidates to explain how an incorrect diagnosis could be produced; it was simply an alternative to garbage in and garbage out (GIGO). If the questions are answered incorrectly then the result produced would be incorrect. Many candidates achieved at least a mark on this question. Candidates that did well on the question identified the specific places where errors could have been brought in, for example the data stored in the knowledge base was incorrect or that the illness was new.

Question 4

This was a challenging question, relating to live data and test strategies.

(a) Candidates found this question very challenging. The question asked what was meant by live data. Some candidates mixed up live data with real time data and then answered the question about real time systems. However, it was pleasing to see some candidates give very specific and correct answers often stating that the outputs are known or is data that is in current use.

(b) As with part **(a)** many candidates found this question very challenging. The question asked candidates how the database could be tested with live data. Some candidates having answered part **(a)** incorrectly continued in the same vein and related part **(b)** back to part **(a)** answers. Some candidates wrote about hacking and security issues rather than testing the database. Those candidates that did well on this question often highlighted the use of customers data and the implications of dealing with this.

(c) Some candidates knew that the strategy was written before the test plan but could not expand upon this point which on its own did not answer the question. Some candidates did attempt the question wrote about testing in general terms and mentioned normal, extreme and boundary data. It was clear from the answers given that many candidates understood the concept of a test strategy, but answers lacked detail, for example candidates wrote about modules but could not expand upon this, simply stating that modules needed to be tested. Candidates that did well in this question understood the term test strategy and explained how testing is to be carried out in the future went on to achieve the full two marks.

Question 5

This question related to gaming.

(a) This question was challenging but many candidates were able to achieve some marks. The question asked about the benefits and drawbacks of gaming in the cloud. Some candidates misread the question and added answers relating to the protection of personal data even though the question had given this as an example. Many candidates achieved some credit for stating that gaming could be accessed from anywhere. Those candidates that did well on this question gave clear benefits and drawbacks of using the cloud in gaming including the use of multi-player games from different places. Some candidates stated that it 'needs internet' which does not achieve credit without stating internet connection. Candidates need to be clear with their answers. Some candidates gave standard answers to the use of cloud storage, without relating it back to the question that had been asked.

(b) This question was better answered than part **(a)**, it was a question about what was meant by encryption of data. Candidates were able to achieve marks for mentioning scrambling of data. One main issue was that some candidates stated that it makes the data unreadable instead of not understandable. Candidates that did well on this question used the correct wording for plain text and cypher text, as well as the need for an encryption key.

(c) Many candidates were able to achieve at least a mark for this question. The question related to the precautions that need to be taken when sending and receiving an email attachment. Some candidates misread the question and wrote solely about the sending of emails and looking for spelling errors, salutations etc. Most marks were achieved for mentioning the use of anti-virus software. Those candidates that did well on this question wrote answers that answered the question set by stating the precautions when two friends are sending an attachment to each other or highlighted the need to have up to date virus checking software and that precautions should be make when sending the correct attachment to the correct email address, although some candidates missed the word address and wrote user.

Question 6

This was a challenging question for many of the candidates. Many candidates did not understand the concept of a satellite phone and linked it to satellite navigation and therefore gave answers relating to GPS. Those candidates that did well on this question stated the limitation of smartphones due to land-based infrastructures needed (towers), and how this would not be available in remote areas.

Question 7

Many candidates were able to achieve at least a mark on this question. The question related to the concept of direct changeover.

(a) This part of the question was better answered than part **(b)** with many candidates achieving at least a mark. The question asked candidates to write about the benefits and drawbacks of direct changeover. This question was about benefits and drawbacks and therefore does not require any comparison with other methods of implementation. Many candidates achieved some credit for stating there is no other system to fall back on, however, the word backup is not allowed in this context. As with many of the larger prose questions answers need to be detailed in order to achieve credit. For example, the use of the word cheaper on its own achieved no credit without stating the reasons why it was cheaper. Even though some responses stated an issue with training, often it was not clear what the issue was, e.g., cannot be trained, rather than the users cannot be easily trained on the new system.

(b) This question was a benefits for direct implementation question. Many candidates were unable to describe what was meant by 'benefits are immediate'. The largest issue was the rewording of the question, namely 'immediate benefits' or 'you can immediately see benefits'. We were looking for answers stating that it could be used straightaway.

Question 8

This question was quite well answered by many of the candidates. However, many candidates misread the question and gave answers relating to media rather than devices. In parts **(b)** and **(c)** due to the word 'drive' meaning both media and device the marks were much improved.

(a) This question was very challenging as many misread the question and wrote down media like DVD or blu-ray rather than DVD reader or blu-ray reader. The question related to storage therefore we did not allow Optical mark reader as this simply reads marks on a document, the same applied to optical character reader which reads characters.

(b) This question was better answered with many candidates able to achieve the mark.

(c) As with part **(b)** this part was well answered.

Question 9

Overall, this question was fairly well answered. The question looked at the operation of a Network Interface Card and connecting Bluetooth devices to a computer.

(a) Most candidates were able to achieve at least a mark for this question, but many found the question quite challenging. The common answer was that the NIC connected a device to a LAN or network. However, some candidates wrote that it connected a device to the internet, which would use a router rather than a NIC. Those candidates that did well on this question clearly identified the need of a NIC for a computer or device to access a network and the use of a MAC address.

(b) This question was well answered by many of the candidates. However, many candidates went into technical details about the different channels and hopping between channels which showed a good knowledge of how it works but it did not answer the question. Many candidates were able to achieve a couple of marks for things like, switching on Bluetooth in the computer, making sure the devices are close to each other and clicking on the device in the list so that they can pair. The question allowed many of the candidates to demonstrate a clear understanding of the process needed to connect the headphones to the computer, and each step was made clear, often opening up full marks. Some candidates had clearly undertaken the task but could not give enough detail to achieve full marks.

Question 10

This was a very challenging question for most candidates about the analysis of a new system. Candidates find this topic difficult even though it is clearly on the syllabus.

(a) This question asked about the information that needed to be identified in the current system. Many candidates were able to achieve at least a mark for the question, but many found achieving more marks was very challenging. Those candidates that answered this question well stated the identification of problems with the current system. Other possible answers were the input, process and output of the current system however some candidates wrote devices after input and output and therefore credit could not be given.

(b) This again was a very challenging question with many candidates not understanding what a system specification was. Those candidates that did well in this question stated hardware and software requirements and how it aids the developers.

Question 11

Many candidates found this question quite challenging. Many candidates managed to achieve at least two marks of the eight that were available.

(a) This question asked about a clear sense of audience and what had to be taken into consideration. Many candidates correctly identified age as a characteristic, with only a few achieving the second mark. As in previous series this topic is becoming quite challenging for the candidates.

(b) In this question candidates managed to achieve marks for the method used but did not give enough detail for the description, many just expanding on the name of the method. As a result, candidates achieved at least two marks on the question. A few candidates achieved the full six marks for this question. Many gave cyber security type responses e.g., using virus protection, which did not answer the question. Those that did well on the question described the use of dongles, holograms and product keys.

Question 12

This question related to children using the internet and how parents could monitor and control this. Many candidates mixed up monitoring and controlling. Some candidates gave alternative answers like going to play sports etc., but even though these are good answers they do not answer the question.

(a) Many candidates were able to achieve at least a mark on this question, although some candidates mixed up monitoring with control. Those candidates that did well on this question gave answers like checking the browser history and allowing children to work under parent supervision.

(b) This question produced better answers than part **(a)** with candidates understanding the concept of control better than monitoring. Most marks were awarded for limiting time and blocking websites.

Question 13

Overall, this question was well answered with many candidates able to achieve at least two marks.

(a) This question was not as well answered as part **(b)**. From the answers it appeared that many understood the concept of generic file formats but could not give a full explanation. Many candidates gave good answers like the ability to open the file in generic software on other platforms.

(b) Most candidates were able to achieve the two marks for this question with answers like JPG and PNG.

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/21
Practical Test

Key messages

- Candidates must be able to distinguish between the typeface categories of serif and sans-serif font types and select a named font for the type specified.
- Candidates must enter accurately text in bold on the question paper.
- Candidates must use proofing techniques to identify errors and ensure consistency of presentation.
- Candidates must retain existing styles applied to document recall text.
- Candidates must make sure their action button hyperlink evidence captures both the selected object, and the link is applied to it.
- Candidates must ensure they include their identification details in tasks before printing as instructed on the question paper.
- Candidates must produce legible screenshots which show the outcome of an action rather than the skill process.
- Candidates must print their Evidence Document as this contains supporting evidence that could substantially improve their grade.

General comments

Most candidates appeared to be well prepared for this examination and demonstrated a good understanding of the skills tested. Most candidates completed all tasks but where tasks were omitted it tended to be the second database report and the chart in the presentation. The main common area of weakness remains in evidencing the link from the action button where candidates need to show the action button selected as well as the link applied to it.

Candidates must be able to distinguish between the typeface categories of serif and sans-serif font types. These are not the actual names of font styles but categories of font type with specific attributes. Candidates must be able to select an appropriate font for the font type specified.

Text to be entered by the candidate as part of a task is displayed in bold on the question 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 carefully check their data entry to ensure it matches the text on the question paper. Common errors included incorrect capitalisation, incorrect or missing characters, omission of spaces, truncated headings and superfluous punctuation.

Candidates are instructed 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 the save process is incomplete. Screenshot evidence is often too small and/or faint to be read even using magnification devices. Candidates must ensure that all screenshots can be easily read with the naked eye and centres should ensure there is sufficient ink in the printer for candidates to produce legible printouts. Candidates should take care when cropping and resizing screenshots to ensure important elements are still shown such as primary keys and all the fields in the database table structure.

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.

Some centres are still submitting stapled work which should be avoided. 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. 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. The candidates' work must be submitted in the original hard-copy printed Assessment Record Folders that are provided to centres. Printed or photocopied Assessment Record Folders should not be used.

Comments on specific questions

Task 1 – The Evidence Document

An Evidence Document was created and used by most candidates to store screenshot evidence. Occasionally the screenshots were too small or faint to be read, or essential information had been cropped. A small number did not include identification details on every page of the document so marks could only be awarded for pages where the identification details were printed. A small minority did not present the Evidence Document for marking.

Task 2 – Document

Question 1

All candidates opened the correct file and most saved it correctly with the required file name. A few candidates incorrectly saved it in the original .rtf format rather than the format of the word processing software being used, and a few did not enter the file name in capitals as shown on the question paper. Most candidates produced a screenshot of the folder contents after the file had been saved which provided the evidence required. Very occasionally the screenshot did not show the file type. Most candidates retained the page setup settings as instructed. A few candidates made changes to the paragraph styles which had already been created and applied to the recall text, even though the question paper instructed that no changes should be made to these.

Question 2

The majority of candidates entered their details left aligned in the footer. A small number of candidates entered only their name and did not include the centre and candidate numbers. Automated page numbers were mostly inserted in the footer and aligned correctly to the right margin. Occasionally page numbers were omitted, or an automated field had not been used with the keyed number 1 appearing on all pages. A few candidates entered these details in the header instead of the footer and occasionally they were not aligned with the margins or appeared in a different position on the second page. Candidates who used the built-in content control did not always remove superfluous text or placeholders in the header and/or footer areas.

Question 3

The creation and storage of the subhead style was well done by most candidates. Common errors included capitalisation or typographical errors in the style name, an underscore used instead of a dash, or the style containing additional formatting not listed. A number of candidates did not base the style on the 'default' or 'normal' paragraph style as instructed. The style formatting was mostly set correctly although a few candidates set 'Times New Roman' as the font style name which is not a sans-serif font style or set the alignment to justified instead of left aligned. Some candidates incorrectly entered 'sans-serif' as the font name which is not a recognised named font style. A named font style with attributes of the sans-serif typeface category must be selected and applied. A screenshot of the *CR-Subhead* style provided details of the settings created and in **Question 8** the subheadings needed to match the settings seen in this screenshot.

Question 4

Most candidates correctly modified the pre-defined *CR-Table* style but did not always produce screenshot evidence to show the modifications. A small number of candidates incorrectly created a new style from the information provided and therefore did not evidence the skill of modifying a pre-defined style. Some candidates did not change the space after each paragraph from 6 point to 0 point and/or change the font to a serif font style. The *CR-Table* style had already been applied to the table in the recall document so the table display should automatically update to reflect the modifications made.

Question 5

This task was usually completed well. Most candidates entered the new text '*by'* with a space and their name. Occasionally this text was inserted on a new line or there were errors in the text '*by'* such as an initial capital and/or additional punctuation. A small number of candidates entered the text '*A Candidate'* instead of their name.

Question 6

Applying the pre-defined *CR-Head* to the title text was completed well by nearly all candidates. For a very small number of candidates the formatting did not always match the stored style settings as there was extra spacing below the title text when the pre-defined style was set to 0 point.

Question 7

Most candidates demonstrated the ability to apply bullets to the specified text with only a small number missing the first item in the list. Any consistent bullet style was acceptable. Aligning the bullets at the left margin with no space before and after each line produced a mixed response. The bulleted items were often not in single line spacing and a 6-point space had not been left after the last item in the list. Few candidates aligned the numbers at the left margin as instructed.

Question 8

Most candidates correctly identified the six subheadings in the document and applied the *CR-Subhead* style created in **Question 3** to each one. The formatting of the subheading text did not always match the settings seen in the Evidence Document. Occasionally there was extra or inconsistent space below one or more of the subheadings. A few candidates did not print the Evidence Document or applied the formatting without providing screenshot evidence of creating the subhead style and therefore did not achieve the style application marks.

Question 9

This task was generally well done with most candidates applying two equally spaced columns to the correct text with the required spacing between the columns. A small number of candidates did not control the column display with some applying the two-column layout to the entire document or including the final paragraph in the column selection. The space between the columns was not always changed from the default value and the initial column break was occasionally positioned below rather than above the first subheading. A few inserted a page break instead of a section break. The final full stop of the penultimate paragraph was not always included in the column selection.

Question 10

Most candidates inserted a new row in the table, but this was not always positioned in the correct place with several candidates adding this as the last row of the table. A small number of candidates did not create a new row but pressed return, so the *Wheat* row extended to two lines. Most candidates entered the text accurately with only a few keying '*Cassava'* with a lower case 'c'.

Question 11

Most candidates successfully merged the first row of the table, so it became a single cell and formatted the first two rows to have a light grey fill. Errors in merging included merging all the cells in the first two rows so all four cells became a single cell and merging the first column instead of the first row. The light grey fill was occasionally applied to the text and not as a background fill to the cell or extended to more than two rows – most commonly the complete table. A number of candidates did not adjust the table column widths, so the data displayed on one line. The table borders and data often extended outside the column width. Most applied 1-point black gridlines to the table. Some candidates did not leave a 6-point space below the table as instructed.

Question 12

Most candidates imported the correct image and positioned this in the correct paragraph. Occasionally the image was missing or positioned in the wrong paragraph. Rotating the image 180° was completed well although a small number did not attempt to rotate it or incorrectly flipped and rotated it. The resize was usually completed well with the aspect ratio maintained. The majority of candidates applied text wrap to the image and aligned this accurately with the left margin and top of the paragraph.

Question 13

In most cases there was evidence of good proofreading and document presentation skills. Most documents were presented in portrait orientation with the table and/or list rarely split over columns or pages. Occasionally the columns and/or pages were not aligned at the top and a number of candidates did not control widows and orphans with a single line of text left at the top or bottom of a column or page. Some candidates incorrectly made changes to the formatting of pre-defined styles already applied to the document text. This was mainly seen with the table style where the style modifications from **Question 4** were not reflected in the table data, and the pre-defined body style where formatting such as full justification, line spacing and paragraph spacing was lost, often resulting in inconsistent spacing between paragraphs. No changes should be made to the pre-applied styles in the source file unless instructed to do so. The page margins were not always consistent where the column section idented further than the page margins resulting in uneven page margins.

Task 3 – Database

Question 14

Examining the seeds csv file and identifying the most appropriate field for the primary field produced a mixed response. Most candidates correctly identified the *Seed_ID* field as containing unique data and set this as the primary key. A number of candidates set the primary key on *Type* which contained duplicate data and was the first field in the table, others created a new ID field and set this as the primary key or did not set a primary field at all. Importing the csv file and using the correct field names and data types were usually completed well although candidates who set the *Price* field as a number data type did not always display this with a currency symbol. Some screenshot evidence was cropped so not all the field names and data types were visible.

Question 15

There were only a few issues with importing the orders csv file with most candidates using the correct field names and data types. As the primary key was given in the question paper there was little issue setting this correctly. A small number of candidates incorrectly included an ID field and set this as the primary key. Some candidates did not import the date fields in DMY format which resulted in some missing dates in their reports. Errors were seen in setting the data types to display as given on the question paper, particularly the dates and Boolean/Logical fields. The Boolean field often displayed a tick box, True/False or –1/0 instead of displaying as Yes/No, and the date fields were often not formatted to display the date as dd-MMM-yy. A few candidates provided screenshot evidence of steps in the Import wizard which did not always show all the data types, or the primary keys set. Occasionally the screenshot evidence was cropped so not all fields and data types were visible.

Question 16

Where the primary keys had been set correctly in the tables most candidates created the correct one-to-many relationship between the tables. The screenshot evidence supplied did not always provide sufficient evidence of a one-to-many relationship. A screenshot of the relationship dialogue box will evidence the relationship type. The relationship diagram will only be credited if referential integrity has been applied so the diagram shows the single and one-to-many infinity symbols confirming the relationship type.

Question 17

This task was completed well by the majority of candidates with most amending the correct record accurately. Evidence of this was seen in second database report. A few candidates did not edit the record, so it did not appear in the report, or amended the wrong record.

Question 18

The first report used fields from both tables and was generally done well. Candidates found both reports less challenging than in previous years. The report title was usually entered in a larger font size at the top of the report but occasionally contained data entry or capitalisation errors or displayed additional text such as '*Query 1*' in the title area. The '*g*' descender on the title was not always fully visible if the text box had not been adjusted to accommodate a larger font size. The search was based on one criteria and was completed well by most candidates although a few searched for records starting with *Bean* instead of a wildcard search containing *Bean*. The sort proved challenging and was not always set for both fields with the data often only sorted in ascending order of *Date_Placed*. Most included the correct fields, but these were not always in the correct order particularly where the sort order had been set during the creation of the report which automatically positions the two sort fields first. Setting the sort order in the report structure after the report has been created will help prevent these issues. Data in one or more fields was occasionally truncated if the default field widths were not edited. The calculation to total the number of packets ordered was occasionally entered as a COUNT instead of a SUM function. The formula screenshot did not always evidence that a database formula had been used and the control box was occasionally truncated, so the formula was not fully visible. A few candidates keyed the formula into their Evidence Document instead of taking a screenshot from the database. A common error was not positioning this value below the *Packets* field. The label for this calculation was usually positioned correctly to the left of the value but occasionally contained capitalisation errors and/or additional punctuation. Most presented a tabular report in portrait orientation, but this did not always fit on a single page. Most candidates entered their identification details on the report so their printed work could be assessed.

Question 19

The second report used fields from both tables. The report title was usually entered in a larger font size at the top of the report but occasionally the data was truncated, contained data entry or capitalisation errors or displayed additional text such as '*Query 1*' in the title area. The search on two criteria was completed well by most candidates. The majority included the correct fields in the report and the field order was usually correct although several candidates displayed the sort field *Supplier* first. This can be avoided by setting the sort order in the report structure rather than in the query or during the creation of the report if a report wizard is used. Most fitted the report to a single page wide although data in one or more fields was occasionally truncated if the default field widths were not edited. A few candidates presented this report in portrait orientation instead of landscape, and some did not fit the report to a single page. A number of candidates entered their identification details in the footer of the report instead of in the report header as instructed. A few candidates omitted their identification details so their printed work could not then be assessed.

Task 4 – Presentation

Question 20

Most candidates successfully imported the 8 slides and presented these with a consistent title and bulleted list layout. A small number of candidates did not use a consistent display for the titles and/or bullets on all slides. Marks were not awarded where incorrect software had been used such as the .rtf source file opened, edited and printed in word processing software.

Question 21

Most candidates included slide numbers on their presentation, but these were not always positioned in the header or aligned in the centre of the slide. Occasionally the position of the slide number was inconsistent on one or more slides. Candidate identification details were accepted in any consistent position on the slides. A small number of candidates only included their name, omitting their centre number and/or candidate number. Automated slide numbers were not always used with some keying the number 1 in the header, so this appeared on every slide.

Question 22

This task was performed well with the majority of candidates changing the layout of slide 1 to a title slide layout and centring the text. There was no requirement for the text to be centred vertically on this paper. Occasionally the bullet had not been removed from the subtitle.

Question 23

This task proved more challenging for candidates. Most entered the new text and their name, but this was not always inserted on a new line. The new text occasionally contained typographical errors such as incorrect capitalisation of 'p' and/or 'b', or punctuation inserted after '*by'*. The new text was not always formatted to match the subtitle style.

Question 24

Few candidates achieved full marks for this question. Most opened the correct source file and used this data to create a standard line chart. A number of candidates incorrectly created a stacked line chart or a 100% stacked line chart which made controlling the value axis display impossible. Some candidates were unable to demonstrate the ability to select non-contiguous data and as a result included data for all the crops for the years from 2011 to 2021. Some candidates selected the correct crops but charted only the two years 2011 and 2021, others selected the correct crops but included the year 2010 in their selection. The legend proved challenging for some and often included the labels *Series1*, *Series2* etc instead of the crop names. The legend was not always displayed below the category axis. The category axis labels often displayed 1, 2, 3 etc instead of the years. Rotating the category axis labels to display them vertically as shown on the question paper proved challenging for some candidates. A small number of candidates incorrectly presented a bar chart.

Question 25

The chart labels were usually entered in the correct position but occasionally contained data entry or capitalisation errors. A few candidates transposed the axis labels displaying *Year* on the value axis and *Tonnes per hectare* on the category axis. The labels were not always displayed as shown with some selecting a pre-set chart style that presented all the labels in uppercase.

Question 26

Candidates who selected the correct data and chart type usually had no difficultly displaying the value axis scale with a minimum value of 3 and maximum of 6. Some candidates incorrectly set the value axis to display the years with a minimum of 2011 and a maximum of 2021 which resulted in the years displaying on both axes. Some candidates did not attempt to change the value axis scale at all.

Question 27

A number of candidates placed the chart on the wrong slide and occasionally it was positioned to the left or below the bulleted text. Most candidates managed to display the data and labels in full with the chart usually positioned so it did not overlap any other slide items. A number of candidates did not follow the instruction to print the chart slide as a single full-page slide in landscape orientation. As a result, the chart had to be assessed from the handouts print where the chart details were often illegible due to the size of text and blurred/pixelated labels. A few candidates printed all the slides as single page slides and therefore did not control the printing.

Question 28

Most candidates managed to insert a new slide, but this was not always in the correct position with a few inserting it as slide 3 or as the last slide in the presentation. Most inserted the text as a title and bulleted list, but the new text often contained typographical or capitalisation errors. Common errors include '*Challenge'* as '*challenge'*, '*population'* as '*Population'* and the word '*threatening'* often misspelt. The bullets were usually formatted to match the other slides, but the title text often did not match the formatting applied to the titles on the other slides with the main difference seen being the application of italic enhancement.

Question 29

Inserting an action button has been tested on this paper several times now but remains a challenge for many candidates. Most inserted a shape of some sort and those that correctly used an action button usually achieved full marks. Those candidates that inserted a general shape needed to show evidence of the shape linked as the shape does not become an action button until the link is applied. A number of candidates did not produce adequate screenshot evidence to show the link applied to the shape. Many took a screenshot of the hyperlink dialogue box only with no evidence of what the link was attached to. The screenshot evidence needs to show the shape selected as well as the open dialogue box demonstrating that the selected object is

linked to the correct slide. Some candidates inserted text in their shape and incorrectly applied the link to the text and not to the shape. A few candidates inserted this action button on the wrong slide or did not position it below the bulleted list. Occasionally there was no screenshot evidence of the hyperlink.

Question 30

Most candidates printed the full presentation as handouts with three slides to the page. This was accepted in landscape or portrait orientation. A small number of candidates did not print all the slides with some omitting the chart slide. A few candidates presented two slides to the page, and some printed the full presentation as single page slides.

Task 5 – Printing the Evidence Document

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 0417/31
Practical Test

Key messages

For this paper the main issues to note are as follows:

- Candidates need to understand the importance of following the instructions given in the question paper.
- Candidates need to ensure that all HTML and the content of all screenshots submitted can be easily read by an examiner without the use of a magnification device.
- Candidates need to take greater care with the accuracy of data entry.
- Candidates need a better understanding of CSS syntax.

General comments

The majority of candidates produced an Evidence Document containing screenshot evidence using a word processing package and provided the required spreadsheet printouts using the specified orientation.

Candidates **must** ensure that the text within the markup, stylesheet and spreadsheet printouts is fully visible and large enough to enable examiners to read the work, without the use of magnification devices.

Comments on specific questions

Task 1 – Evidence Document

Almost all candidates created an Evidence Document.

Task 2 – File Management

Question 1

Most candidates created a new folder with the correct file name **plaster**. Some candidates did not use the capitalisation given in the question paper when naming the folder and used an upper-case P for the folder name. Most candidates located and stored the required files in the folder and were able to show the required details (file names, file extensions, file sizes, image dimensions, frame height and frame width for the video), although some candidates did not include the image dimensions or the frame height and frame width. Some candidates included height and width for the image rather than the video. When taking the screenshot of this folder some candidates cropped the image so that the folder name was not visible and Examiners could not verify that the files viewed were in the correct storage location.

Task 3 – Web page

Question 2

Most candidates produced the structure of the web page as shown in the diagram with a single table. Some candidates did not set the overall width of the table to 95 per cent and this was seen as 100 per cent on a number of occasions. Almost all candidates did not display the cell contents shown in the diagram as instructed in the question paper. Some candidates did not successfully centre-align the table in the browser window and some only displayed the table border and not the cell borders.

Question 3

The majority of candidates placed the correct image in cell A of the table, but some did not set the width of the image to 100 per cent so it did not fit the full width of the cell.

Question 4

Although most candidates followed the instructions in the question paper to use both <video> and <source> tags in cell B to display the video **m25plaster.mp4**, there were still a significant number who allowed the software they were using to attempt to insert the video using <object> tags which gained no credit. Of those candidates who attempted this using the <video> and </video> tags, many correctly included the loop attribute. Some candidates omitted this or did not use the correct syntax for adding the attribute. Some candidates did not use a separate <source> tag choosing to use src as an attribute of the video tag. This did not meet the requirements of the question paper and did not gain any credit. Some candidates erroneously set their error message as part of an alt attribute (which is not used with the video tag) or did not place the error message between the <video> and </video> tags.

Question 5

This step was performed well by most candidates who successfully placed the required text in the specified cell. Some candidates did not apply the paragraph style to the text, some applied the <h2> style and some overwrote the css style with a style that had been created by the software they were using.

Question 6

Most candidates entered the text in the correct cells and applied the <h2> style although the data entry was not always 100 per cent correct with variations in capitalisation of words and errors in the spelling of ‘Specialist’ and ‘construction’.

Question 7

Most candidates created the links around the specified text, but some candidates erroneously included a file path to the files **m25spec.htm** and **m25const.htm**. Some candidates omitted the target=”_blank” attribute and value so the web page would open in a new window called blank. In the link to open an email editor many candidates did not enter the email address accurately and some omitted the subject line. Where the subject line was included, this frequently contained variations in capitalisation or the omission of the final exclamation mark.

Question 8

Where candidates attempted this question, most created a new stylesheet saved with the specified file name. Some candidates included HTML within the stylesheet or did not produce a separate stylesheet and included the styles embedded within the head section of the web page which gained no credit. Most candidates correctly set the comment at the start of the stylesheet using /* and */. A small number of candidates used HTML notation for this comment. Few candidates centre aligned the table within the browser window using **margin-left: auto** and **margin-right: auto**. Some candidates incorrectly centre aligned the contents of the table rather than centre aligning the table in the web browser. Most candidates set the borders to white using the hexadecimal code #ffffff and the width to 2px for the table although a significant number of candidates did not apply these settings for the cell borders using td. Most candidates placed a screenshot of their stylesheet in the Evidence Document although not all included the file name despite clear instructions to do so. Some screenshots were very small making it difficult to read by examiners. It is important that candidates present examiners with work that is in an appropriate font size and is readable in order for them to gain the marks.

Question 9

Most candidates correctly attached the two stylesheets to the web page although some erroneously included file paths which enabled the file to be attached on their computer but would not work when uploaded to a web server. Some candidates did not attach the stylesheets in the correct order so that the new stylesheet had higher priority than **m25plaster.css**.

Question 10

Most candidates added their HTML source, and a screenshot of the web page displayed in the browser to their Evidence Document, but some did not show the address bar in the screenshot. Some screenshots were small making it difficult for Examiners to read the text.

Task 4 – Spreadsheet

Question 11

Almost all candidates placed the specified text followed by their name, centre number and candidate number left aligned in the header although there were variations in capitalisation of the specified text. Fewer candidates placed the text with correct capitalisation and spacing followed by the automated date, the word 'at' and the automated time on the right in the header. Some candidates mixed up the elements needed on the right and the left sides or included punctuation such as a colon after the specified text. A number of candidates did not display the correct date.

Question 12

Almost all candidates inserted a new row, and the text as specified although there were a number of typographical errors seen in the data entry with 'dimensions' and 'metres' often containing errors and 'are' being omitted.

Question 13

Most candidates merged cells A1 to B1 and A2 to B2 and produced a spreadsheet with identical formatting to the image as shown in the question paper. The more frequently found errors and omissions included:

- row 1 not wrapped as shown
- row 1 not centre-aligned vertically
- column A from A4 onwards not right aligned
- column B from B4 onwards not centre aligned.

Question 14

Most candidates provided screenshot evidence of the validation rule used to restrict data entry in cell B12, but fewer used capitalisation given in the question paper for the text **Yes** and **No**. Some candidates did not set the criteria to 'List' and some included 'and' or 'or' in the source.

Question 15

Most candidates successfully deleted the required rows although a few deleted the contents of the cells and not the rows in the spreadsheet.

Question 16

This was completed well by most candidates. Some candidates did include an inappropriate use of the SUM function which was not required in this formula.

Question 17

This formula proved challenging for some candidates with some only attempting the first part of the formula to calculate the area of the walls and not using an IF statement to check for the presence of a window. Many candidates were able to provide a working solution and there were a variety of solutions seen by examiners. Most candidates who provided a working solution used an IF statement to check if a window was present and then added the formula for the wall area to the formula for the window present, and if no window present calculated the area for the walls only. This solution worked fully but candidates should always attempt to create the most efficient solution, in this case calculating the wall areas first and then adding the window reveals only if a window is present. For lengthy formulae, this type of solution allows candidates to test parts of their formulae fully before adding the second element, in this case the area of the window reveals.

Question 18

Most candidates printed the spreadsheet in landscape orientation with the row and column headings displayed. Some candidates did not fully display all cells.

Question 19

Most candidates printed the spreadsheet in portrait orientation on a single page with no row and column headings displayed. Some candidates displayed the row and column headings on this printout.

Task 5 – Printing the Evidence Document

This was printed as specified by almost all candidates.