

# INFORMATION & COMMUNICATION TECHNOLOGY

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**Paper 0417/12**  
**Theory**

## **Key messages**

This paper was in line with the difficulty of previous papers and was deemed as being very good to test the candidates. The distribution of the marks showed that the paper as a whole was a good discriminator. The mean for the paper was higher than in previous sessions. The range of marks that candidates gained were from 1 to 64, a good spread with marks being awarded at every point within this range. There was very little skew in the marks.

The paper covered a large range of topics, some of which were new ones and some that had been seen on previous examination papers, therefore giving a good coverage of the syllabus. There was a good balance between the technical topics and the more general topics.

As the scenarios of the paper change it is important to remind candidates to read the question carefully before answering it as questions may appear similar when in effect they are not. Candidates who performed well in this paper used specific and detailed language when answering the prose questions. However, there is still a tendency for some candidates to answer the comparison questions using a split answer of advantages and disadvantages, with a line drawn down the answer lines. This type of layout does not give enough scope to gain high marks as the answers are simply statements without a comparison.

As with previous series I need to report back on the lack of use of generic names for hardware and software. There has been an increase in the number of candidates using brand names to answer the questions. 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 systems'.

There were fewer candidates writing on extra sheets or blank areas of the examination paper. Occasionally candidates may need to expand their answers on to other parts of the examination paper or onto extra sheets. 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 are using extra sheets rather than just writing beneath the question where there may be space. The paper is marked electronically and if the candidate writes on extra sheets or on the blank pages/spaces in the examination paper the extra elements or key points within it may be missed.

## **General comments**

Many candidates wrote answers for every question with few candidates leaving blank answers. This paper gave all candidates an opportunity to demonstrate their knowledge and understanding of ICT using a wide variety of topics therefore this may be the reason that candidates tended to attempt all questions. Questions that the students found more challenging to answer were based on testing, considering the audience for an ICT solution, cloud storage, expert systems, and data verification.

There were a number of candidates that gave extra answers that were not asked for in the question. When a question indicates a specific number of answers, candidates should only write one answer in each allocated space as only one is marked for that space. Any extra answers placed on the same line or 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 is to add 'because' and then give a valid reason. All answers on the paper should relate back to the question being set.

### **Comments on specific questions**

#### **Question 1**

Candidates found the question quite challenging with some circling blu-ray disc and hard disk. However, many candidates were able to gain at least one mark.

#### **Question 2**

Overall this question was quite well answered with many candidates gaining at least half marks.

- (a) There were many correct responses for this question that clearly identified what application software was needed for a user to complete a task and what system software was needed to operate the system or act as a platform for other software to run.

Some candidates just stated that application software was needed to complete a task without clarifying that it is for the user.

- (b) (i) This question was quite well answered although there were some candidates who wrote down trade names rather than generic names. Many candidates gained the full two marks for this question.

- (ii) As with **part (i)** this question was also well answered. Candidates wrote a variety of system software, including linkers and compilers. However as with **part (i)** some candidates wrote brand names rather than generic names therefore gaining no marks.

#### **Question 3**

This question was quite challenging for candidates. Some candidates mixed up analogue and digital data. Also lots of answers were unclear with the candidates writing about computers understanding or not understanding the data.

Some candidates identified that analogue was continuous and digital is discrete data and that analogue data needed to be converted to digital for a computer to process it. Other candidates stated that humans could not understand digital data but could read analogue data.

#### **Question 4**

This was a very challenging question about the role of the CPU. Many candidates wrote that the CPU was the 'brain' of the computer but this did not answer the question.

For responses that explained a process, often it was in general terms, referring to the computer as the CPU. Some candidates gave general answers without expanding on these. For those responses that described the Fetch Execute cycle most answered well. Namely data was fetched or retrieved, stored and then executed. Those candidates that clearly identified the roles of the ALU, Control Unit and memory gained most marks in the question.

#### **Question 5**

This question was very well answered although candidates are to be encouraged to use the correct terminology.

#### **Question 6**

This question was quite challenging for most candidates with **part (a)** being a more challenging question than **part (b)**.

- (a) This was a very challenging question about the use of augmented reality (AR). Candidates that gained marks stated the use in gaming although some candidates gave brand names rather than writing gaming. Some candidates understood the areas where AR could be used but did not clearly state where they were used, for example Education or Military.
- (b) This was better answered than **Question 6(a)** with many candidates gaining at least a mark of the two marks available. Many candidates clearly stated the difference between AR and VR. Those candidates that gained good marks were able to expand on their answers. Candidates showed that they knew more about VR than AR.

### Question 7

This was a very challenging question about a topic that is rarely well answered.

- (a) (i) This question was fairly well answered. The question related to a user interface and asked candidates to describe it. Many candidates wrote about questions appearing and the answers being given by the users. One general answer was that it was a way that the user interacts with the system. Some candidates, however, started to describe the full use of expert systems which was not part of this question.
- (ii) This was a very challenging question regarding the knowledge base. Many candidates correctly stated that it was a collection of facts or information, with few candidates expanding on the answer stating that the facts were created by gaining information from experts or other resources. Stating that it was a collection of data was too vague.
- (b) This was also a challenging question. Some candidates demonstrated an understanding of an expert system and, of these, most produced good answers. Many candidates were able to use the key terms which are part of an expert system.

### Question 8

This question related to vishing and was fairly well answered with most candidates able to gain at least half marks.

- (a) Most candidates gained some credit for this question, with many going on and gaining the full two marks. Some candidates however did not expand on their answers and make it clear that a phone call was involved. Most candidates gained the second mark for stating it was for the intention of gaining personal information.
- (b) This was a very challenging question for many candidates who appeared to know the concept but could not expand fully on their answers. Some candidates wrote that the blocking was correct but stated blocking the caller rather than blocking the number. Most gained some credit on this question mainly by stating not to answer calls from unknown numbers or to report the incident and not giving out personal information to the caller. Again, this was an answer where candidates gave a brand name for an app to filter calls.

### Question 9

This was a very challenging question for all candidates. Testing had been set on previous examination papers although test plans and test strategies had never been set. For responses that gained some credit it was often for mentioning parts of a test plan or the decision to use modular testing.

### Question 10

This was a challenging question especially for **part (a)**. The question related to verification and validation.

- (a) It was pleasing to see a number of responses clearly stating the need to check that the data has been correctly copied from a source document, and this was carried out by comparing data entered with the original data. As in previous sessions some candidates still write that it is to check that the data entered is correct or relate it back to proof reading.

- (b) This part was better answered than **part (a)** although some candidates gave more than three validation checks. Many candidates were able to correctly identify the three validation checks but didn't expand upon these.

### Question 11

This question was well answered by many of the candidates although some found **part (a)** more challenging than **part (b)**.

- (a) Most candidates were able to gain at least two marks with the general answers gaining marks for larger keyboard/larger screen etc. This question asked for advantages and disadvantages and therefore is a comparison question. Better responses clearly gave a comparison for example tablet computers are more portable instead of desktop computers are not portable. Candidates are to be reminded about the need to expand on their answers to ensure they gain all possible marks.
- (b)(i) This question was very well answered with nearly all candidates gaining full marks.
- (ii) As with **part (i)** this question was well answered by all the candidates. However there were fewer possible answers for this question.

### Question 12

This question was challenging for many candidates. Candidates managed to write about how data was stored in the cloud but seemed to find answers to managing data more challenging. Many answers were based on the candidates' experience of cloud storage rather than from a technical point of view. Candidates understood that the cloud could be used for backing up data.

Well thought out answers were mainly based around data being stored on remote servers and having to pay a subscription for the storage, if you need more data it needs to be paid for and data is managed by a third party cloud provider.

### Question 13

This question was fairly well answered by all the candidates.

There were plenty of opportunities to gain marks in the question and provide candidates the scope to demonstrate their knowledge on using smart devices in the home. Common answers were making people lazy, becoming de-skilled and over reliance on these devices. There were marks for naming a valid smart device. Quite a few candidates only described the issues and did not name any devices.

### Question 14

This was a very challenging question although **part (b)** produced better answers than **part (a)**.

- (a) This was a challenging question for candidates to answer. The better answers were those that stated that classes are user-defined and styles are pre-defined. Other good answers were that classes start with a full stop and giving an example of a style, for example h1.
- (b) This question was reasonably well answered by the candidates. Most recognised the presentation layer.

### Question 15

This was a very challenging question.

- (a) This question was based on factors based on the age of the audience. Those candidates that gained marks related their answers to the age of the audience. Answers for example like young people prefer, bright colours, large fonts and more images than text and simpler language.
- (b) Candidates gave their answers in the form of a list and also referred their answer back to **part (a)** and giving the same answers. Where candidates gained marks, it was mainly about the language used, length of content, and keeping to the point of the content.

### Question 16

This question was quite challenging even though the topic of spam emails had been set previously.

- (a) This part of the question was challenging for candidates with most only gaining a mark. The question related to the characteristics of spam emails. Correct answers related to unwanted emails, emails that were sent in bulk, and emails with lots of spelling and grammar mistakes.
- (b) This part of the question related to ways of reducing spam emails and as with **part (a)** it was also challenging for many candidates. Correct answers included using a spam filter.

# INFORMATION & COMMUNICATION TECHNOLOGY

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**Paper 0417/21**  
**Document Production, Databases and Presentations**

## **Key messages**

For this examination 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
- enter accurately text in bold on the question paper
- use proofing techniques to identify errors and ensure consistency of presentation
- retain existing styles applied to document recall text
- be able to distinguish between the database page header/footer area and the report header/footer area and understand which is appropriate to use
- ensure they include their identification details in tasks before printing as instructed on the question paper
- produce legible screenshots which show the outcome of an action rather than the skill process
- print their Evidence Document as this contains supporting evidence that could substantially improve their grade.

## **General comments**

Candidate performance was at a higher level than seen in previous sessions. Overall, the candidates appeared to be well prepared for the examination with most attempting all tasks. The database tasks proved most challenging for the majority of the candidates. The paper gave a good spread of marks and the majority of candidates showed a good level of skill.

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. Care should be taken 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 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. 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 print 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 filename 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. 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 the correct text in the header but this occasionally contained capitalisation or spelling errors. Most candidates inserted all their details after the header text and aligned this to the right margin. A few candidates entered only their name and did not include the centre and candidate numbers. There was not always a space after the colon and some candidates inserted more than a single space. Occasionally page numbers were omitted from the footer or an automated field had not been used with the keyed number 1 appearing on all pages. Some candidates used a style of numbering that included the word '*Page*' which was acceptable providing right alignment with the page margin was maintained on all pages. 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**

Formatting the correct text to be two equally spaced columns with the correct spacing between the columns was generally done well. Not all candidates controlled the text displayed in columns with some applying the two column layout to the entire document or including the final paragraph in the column selection. Several did not include the final full stop in their selection. The initial column break was occasionally inserted below rather than above the subheading and sometimes a page break was inserted instead of a section break. The space between the columns was not always changed from the default value.

##### **Question 4**

The application of numbered bullets to the specified text was usually done well although a few candidates did not apply numbers to the first and/or final item in the list. Any consistent number style was acceptable. The numbered items were often not in single line spacing and a 6 point space had not been left after the last item in the list. Very few candidates aligned the numbers at the left margin as instructed.

##### **Question 5**

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 some did not set capitals and a few candidates applied automated numbering to the subhead style. Some candidates incorrectly entered 'serif' as the font name which is not a recognised named font style. A named font style with attributes of the serif typeface category must be selected and applied. Other candidates set 'Arial' as the font style name which is not a serif font style. A screenshot of the GA-subhead style provided details of the settings created and in question 6 the subheadings needed to match the settings seen in this screenshot.

### Question 6

Most candidates correctly identified the three subheadings in the document and applied the GA-subhead style to each. The formatting of the subheading text did not always match the settings seen in the screenshot evidence for the GA-subhead style, most commonly where automated numbering was seen set in the screenshot evidence for **Question 5** but this style was not applied to the subheadings in the document. A few candidates did not provide any evidence of creating the GA-subhead style so the mark for applying the style to the subheadings in the document could not be awarded.

### Question 7

Most candidates moved the paragraph to the correct location but this was not always done with the accuracy required. Some candidates copied the paragraph instead of moving it. The GA-body style formatting applied to this paragraph was often lost in the move with the paragraph no longer justified, the 6 point space below the paragraph lost or the line spacing changed. There was often inconsistent spacing in the place where the text was moved from or above and/or below the paragraph in the new location. Some candidates joined the moved paragraph to the following paragraph so the single paragraph structure was not maintained.

### Question 8

Most candidates created a cloud shape and resized this to a width of 5 centimetres. Any type of cloud shape was accepted. The shape was not always aligned to the right margin and top of the paragraph with the text wrapped as instructed. Some candidates did not change the thickness of the outside border or change the border colour to black. Most applied a light grey fill to the shape but this shading was not always consistent, particularly if a text box had been used to enter the text in the shape in **Question 9**.

### Question 9

The text was usually entered in the shape but was not always displayed on one line as shown on the question paper. The text occasionally contained capitalisation or typographical errors. Some candidates did not apply bold enhancement to the text in the shape.

### Question 10

The overall presentation of the document was usually good. Most documents were presented in landscape orientation although occasionally the page margins had been changed. Good proofreading skills were not always evident as the two spelling errors in the *GAMES* paragraph were often not corrected, widows/orphans were not controlled, the list was split over two columns and the columns did not always align at the top of the page. Some candidates incorrectly made changes to the formatting of the VG-body style in the recall document with justification, line spacing and paragraph spacing often changed.

## Task 3 – Database

### Question 11

Examining the games csv file and identifying the most appropriate field containing unique data for the primary field produced a mixed response. Most candidates correctly selected the *Game\_Code* field as the primary field but a number of candidates set this on *Game\_Title* which was the first field in the table and contained duplicate data, included an ID field and set this as the primary key or did not set a primary field at all. Importing of the csv file using the correct field names and data types was mostly done correctly with the exception of the *Global\_Sales* data which was rarely stored and displayed to 2 decimal places. These values were either not formatted at all or stored and displayed as integers. Some screenshot evidence was cropped so did not show all 11 fields in the games table.



### Question 12

There were very few issues with importing the classifications 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.

### Question 13

There were very few issues with importing the genre csv file, using the correct field names and data types and setting the primary key as instructed. A small number of candidates incorrectly included an ID field and set this as the primary key.

### Question 14

Where the primary keys were set correctly in the tables most candidates created the correct one-to-many relationships between the tables. The screenshot evidence supplied did not always provide sufficient evidence with a few candidates capturing the process of creating the relationships rather than the outcome and this was insufficient to confirm a one-to-many relationship had been created. A screenshot of the relationship dialogue box will evidence the relationship type. Some candidates provided a screenshot of the relationship diagram without showing the type of relationship. The relationship diagram can only be credited if it shows the single and one-to-many infinity symbols confirming the relationship type. Some relationships were set as one-to-one instead of one-to-many.

### Question 15

Most candidates entered the new record in the correct table. The new record occasionally contained data entry errors with spelling errors often seen in *Tomas*, *Cyrus* and *Creation Arts*. Candidates were penalised if they overwrote the first record in the database instead of entering this data as a new record at the end of the table.

### Question 16

The first report used fields from all three tables and was done well by candidates who attempted this question. The report title was usually entered in a larger font size at the top of the report. Occasionally this title contained data entry or capitalisation errors or displayed additional text such as 'Query 1' in the title area. The search criterion did not always find the correct records with a number of candidates incorrectly searching for console types containing 'Cyrus' instead of those beginning with 'Cyrus'. Some searched for the records greater than 2010 instead of 2010 and later, and a few confused the greater than (>) and less than (<) operators. Most included the correct fields in the report although these were often in the wrong order mainly due to the sort field being placed 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. The sort on one field was usually correct. Occasionally data in one or more fields was truncated (most commonly in the *Game\_Title* or *Genre* fields) and required some manipulation to ensure all data was fully visible. Most presented the report in portrait orientation but this did not always fit on a single page. Most candidates entered their identification details on the report.

### Question 17

The second report used fields from two tables. 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. Most candidates completed the wildcard search on the *Game\_Title* field successfully. Occasionally only C3 or C7 age codes were found, not both. The new field heading was usually entered accurately with only a few incurring a fault for omitting the underscore and a very small number entering the field heading as 'Sales\_percentage'. There were a surprising number of errors in calculating the percentage sales value given that the calculation was supplied on the question paper. Few candidates displayed this value to 2 decimal places and some formatted this to display a % symbol. The majority included the correct fields in the report although some included the 'Age\_Code' field which was used for the search but not displayed in the report. The field order was often incorrect due to the sort fields being placed 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 but truncation in one or more fields was common. Candidates who attempted the two field sort were generally successful. Occasionally only data in the *Global\_Sales* field was sorted. Most presented the report in landscape orientation with the correct fields displayed. A few candidates presented this report in portrait. The calculation to find the average price was completed well by those that

attempted it. A common error was not positioning this value below the *Price* column. The formula screenshot did not always evidence that a database formula had been used and frequently the control box was 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. Some candidates placed this calculation in the page footer so it appeared at the end of every page in the report, rather than the report footer so it appeared at the end of report as instructed on the question paper. The label for this calculation was usually positioned correctly to the left of the value but occasionally contained capitalisation errors and/or additional punctuation. Identification details should be entered in the page footer so they appear in the footer of every page but several candidates entered these in the report footer so they appeared only at the end of the report, or in the report header. A few candidates omitted their identification details from all pages of the report which could not then be assessed.

#### **Task 4 – Presentation**

##### **Question 18**

Most candidates successfully imported the 8 slides and presented each as a title and bulleted list. A small number of candidates imported the data but did not display bullets on the slides. Some candidates changed the bulleted text on the chart slide to right aligned therefore losing the consistency of presentation. Marks were not awarded where incorrect software had been used such as the RTF file opened, manipulated and printed in word processing software.

##### **Question 19**

Most candidates attempted to display all the master slide items but these were not always in the same position on every slide. It was fairly common for the master items to be missing from slide 1 or to be placed in a different position to the other slides. Candidate identification details were accepted in any consistent position on the master slide. Occasionally the identification details were placed in the page header instead of on the slide. In a small number of cases the logo was so large that it overlapped the title and/or bulleted text on the slide.

##### **Question 20**

Most candidates changed the layout of slide 1 to a title slide layout. Occasionally the title and subtitle were not centred vertically on the slide and/or the bullet had not been removed from the subtitle. A small number incorrectly displayed the subtitle in a larger font size than the title.

##### **Question 21**

Nearly all candidates deleted the correct two slides from the presentation. Occasionally only one of the slides had been deleted.

##### **Question 22**

Most candidates created a vertical bar chart but the selection of data was often not accurate. Some candidates were unable to select non-contiguous data and therefore charted all the data. Those who selected data for 2023 only often plotted additional data on the category axis such as '*Rating categories*' or '*Total for year*'. Occasionally a horizontal chart was presented. A legend was often displayed when additional chart data had been selected.

##### **Question 23**

The chart title was usually entered in the correct position but occasionally contained data entry and/or capitalisation errors or words were omitted completely. A common error was '*Rating*' keyed as '*Ratings*'. Most entered the category axis title correctly although occasionally this was positioned on the value axis or '*category*' was keyed as '*categories*' or '*Category*'.

##### **Question 24**

Most candidates displayed the data values along the top of each bar. Occasionally these were placed in the middle of each bar making the values difficult to read.

### Question 25

Some candidates did not manage to change the value axis scale and few controlled the scale completely with a minimum value of 0, a maximum of 560 and increments of 70.

### Question 26

Most candidates placed the chart on the correct slide to the left of the bullets. A small number placed the chart above or below the bulleted text instead of making room for it to the left of the bullets. Some candidates right aligned the bulleted list on this slide and as a result lost the consistency of presentation required. When the chart was positioned correctly the axis labels were usually fully visible and the chart did not overlap other slide items.

### Question 27

Creating a hyperlink to a document was generally well done. Some candidates did not apply the link to the correct two words including more or less text, or setting the hyperlink on the full line of text. Some candidates did not produce adequate screenshot evidence to demonstrate this skill. Some showed the linked file open with no evidence of the hyperlink, or provided a screenshot of the text underlined with no proof of a hyperlink. A small number of candidates linked the correct text to an incorrect spreadsheet file named c02categories.xlsx and not the supplied source file c02categories.csv as instructed on the question paper. On occasions the address path was too long to show the linked file name but credit was given if the file was seen selected in the folder window.

### Question 28

A number of candidates find the creation of presenter notes challenging. Some incorrectly entered the text as a bulleted item on the slide, or inserted the text as a comment or used a text box to place the text on the slide. Occasionally the text was entered in the header/footer area. Candidates who did enter the text correctly as presenter notes often omitted the full stop from the sentence. Few candidates printed in presenter/speaker notes layout with many printing a single full page slide.

### Question 29

Most candidates printed in portrait orientation with two slides each filling half the page. Controlling the printing was not so well done with some candidates printing all the slides in the presentation instead of only slides 1, 2, 3 and 4.

## Task 5 – *Printing the Evidence Document*

### Question 30

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

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**Paper 0417/31**  
**Spreadsheets and Website Authoring**

## 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 they include all their candidate details in the correct place on all printouts.
- Candidates need to ensure that all HTML and 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 should have a sound understanding of HTML so they are able to appropriately edit the markup of any pages created using WYSIWYG software.
- Candidates need to be able to identify which spreadsheet function is the most appropriate for a task.

## General comments

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 all sections of the paper.

Candidates must ensure that the text within the screenshots, CSS, HTML markup, and spreadsheet printouts is large enough to enable examiners to read the work.

## Comments on specific questions

### **Task 1 – Evidence Document**

Almost all candidates created an Evidence Document.

### **Task 2 – Evidence editing and file management**

#### **Question 1**

The **march24** folder was created by most candidates who also located and stored the required files in this folder. Most candidates were able to show the required details (file name, file extensions, file sizes, image dimensions and the frame height and frame width for the video). A number of candidates cropped the image so that the folder name was not visible so examiners could not verify that the files viewed were in the correct storage location. Where the folder name was displayed some incorrectly used an upper case M for the folder name or included a space between march and 24. Most candidates reflected the image correctly and saved it in the required format but often the name of the image was incorrectly spelled or contained an initial capital.

### Task 3 – Web page

#### Question 2

Many candidates produced the structure of the web page with a single table as shown in the diagram. Some candidates did not set the cell widths and heights as specified in the diagram with some candidates omitting the percentage or replacing it with px. Many did not set the overall width of the table to 90%. Few candidates displayed the cell contents shown in the diagram as instructed in the question paper. Not all candidates ensured that table borders appear on the final web page.

#### Question 3

The title of the web page was correctly inserted in the <head> section of the web page by many candidates although there was some variation in capitalisation of words and misspelling of balloon.

#### Question 4

The balloon image was frequently placed in the correct cell, as was the banner image, although some were not sized to fit the width of the cell. Although many candidates used the video and source tags, 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 most set the video width to 100 per cent of the cell width. 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. Few candidates included the controls and autoplay attributes.

#### Question 5

A minority of candidates set appropriate alternate text for both still images. The **alt** text attribute should contain text that is used by a reader to describe the image which is often used for the partially sighted or in the event of an image failing to display in the browser. This needs to be in sufficient detail for a user to understand what they are looking at.

#### Question 6

This step was performed well by most candidates. There were some typographical errors in the typed text. Some candidates did not set this in style h2 and some used a combination of <h2> and <p> tags.

#### Question 7

This step was performed well by most candidates who were able to place the required content in the specified cell. Most candidates set the text 'Memorable and inspiring' in style h1 but some did not set the remaining text to paragraph style. Some candidates set all text in style h1.

#### Question 8

Most candidates opened the correct file and produced a stylesheet as specified. Some candidates included HTML within the stylesheet or did not produce a separate stylesheet and included the styles within the head section of the web page which gained no credit. The CSS comment was not always set using /\* \*/ and was sometimes seen at the end of the stylesheet or after the body {} selector rather than at the start. Some candidates omitted the comment completely. Few candidates centre aligned the table within the browser window using **margin-left: auto** and **margin-right: auto** although a small number did attain these marks using the compressed version with a single margin element. Some candidates incorrectly centred the contents of the table rather than centring the table in the web browser. Most candidates were able to correctly set the border spacing to 10 pixels within the table selector, however, few candidates correctly set the padding in the table cells to 20 pixels. Many candidates set the padding in the table selector rather than in a td selector. Many candidates used a single selector to define the styles h1 and h2 and set the correct fonts in the correct order. Some candidates included the word 'and' between h1 and h2 as in the question paper. A number of candidates introduced typographical errors in the font name and did not use the correct capitalisation for the name of the font styles. Some candidates omitted the speech marks from the font name Cooper Black and others included speech marks on the default serif. Most candidates correctly centre-aligned the styles. Some candidates added the text colour as blue rather than using the hexadecimal code #000099 as stated. Some candidates did not use a single selector thereby increasing the chance of making

a mistake when repeating the style definitions. A significant number of candidates incorrectly used px when setting the font size rather than pt. Some candidates did not name the stylesheet as specified in the question paper with underscores being replaced with commas. Most candidates placed a screenshot of their stylesheet in the Evidence Document although not all included the file name. Some screenshots produced were very small and some had little contrast between the background colour and the text. Most candidates correctly attached the stylesheet to the web page although some erroneously included a file path which enabled the file to be attached on their computer but would not work when uploaded to a web server.

### Question 9

Most candidates placed a copy of their HTML in their Evidence Document, often copying and pasting the text. Candidates who attempted this with screenshots were less successful as some screenshots did not display all the HTML and the text in others was very small or had little contrast between the background colour and the text so they were sometimes unreadable. Most candidates placed a screenshot in the Evidence Document of the web page displayed in the browser although not all candidates displayed the address bar. Some candidates did not use a browser as instructed but displayed their web page in an editor.

### Task 4 – Printing the Evidence Document

This was printed as specified by almost all candidates.

### Task 5 – Spreadsheet

#### Question 10

Most candidates managed to produce a spreadsheet with identical formatting to the image shown but a number of errors and omissions were seen. These included:

- cell borders not applied to merged cells A1 to C1
- additional cell borders applied to C6
- column A not right aligned
- column B not centre aligned.

#### Question 11

This was completed well by almost all candidates although a few candidates left aligned the header.

#### Question 12

This step was performed well by most candidates using a VLOOKUP function. Occasionally the external file was not the original csv file but was seen as a spreadsheet in xls or xlsx format. The lookup range was often set to \$A\$3:\$J\$27 or \$A3\$3:\$C\$27 rather than \$A\$4:\$B\$27.

#### Question 13

This step proved challenging to most candidates with few using the correct lookup function. Many candidates duplicated the formulae they had used at step 12, changing the cell reference for the lookup value, and manually identifying the value or cell reference that provided the required result in the formula. Examination of the file would show that the solution required a formula to look up the contents of cell B3 from data presented horizontally in row 2 and return the distance for the camp with the code contained in cell B4. For the data selected, the result was held in row 19 of the array. A minority of candidates identified that the formula required a solution similar to B4+2 to return the correct value. Most candidates referenced the correct external file and included FALSE or ,0 for the match type.

#### Question 14

This step was performed well by most candidates.

#### Question 15

This step proved challenging for some candidates. Many candidates omitted the ROUND function. Of those who used the ROUND function, a majority of candidates rounded it to one or two decimal places rather than to the nearest hour. Some candidates erroneously used ROUNDUP or ROUNDDOWN. Many candidates did not divide the contents of cell B8 by 60 to convert the minutes to hours. Most candidates who attempted this step were able to correctly include `*2200+B7*800` in the formula but many incorrectly included brackets around `(2200+B7)`.

#### Question 16

Most candidates included the correct formatting to cell B10. Some used \$, £ or € as the currency symbol rather than TZS as instructed in the introduction. Most candidates provided two printouts; one showing the values on a single page and one showing the formulae in landscape with row and column headings displayed. Data was often fully visible on both printouts. A small number of candidates omitted the row and column headings from the formulae printout.