

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/12
Written Paper

Key messages

Questions that asked the students to answer simple and straightforward questions were answered well but those questions that stretched the candidates or dealt with the newer elements of the syllabus lacked depth in the answers written. Candidates need to refer to the marks given when answering the question.

There were less blank answers than in recent examinations with candidates attempting most of the questions with simple statements.

The number of candidates giving brand names rather than the generic names for the product has reduced. 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'.

General comments

All candidates appeared to have enough time to finish paper.

Once again, some candidates gave extra answers that were not asked for and did not gain credit. There is also a number of students who write on extra sheets and the blank pages of the question paper. Some candidates are not noting that they have done this, noting in the existing answer space where the replacement answer has been written helps examiners to locate and assess the answer.

Overall the paper covered all abilities, testing both the more technical candidate as well as the general ability candidate.

There were fewer issues with the use of correction fluid but it is still being used. Correction fluid is not permitted, as stated on the front of the examination paper, as it leads to the answer being harder to determine by the examiner, which can therefore impact on the outcome of the candidate.

Comments on specific questions

Question 1

(a) – (d) This was well answered on the whole. We were however lenient in allowing spelling mistakes and missed words like 'Magnetic ink character' as it was the first question on the paper and the students had to answer from a list given.

Question 2

Well answered on the whole but magnetic tape being internal memory was a frequent wrong answer.

Question 3

Fairly well answered but some candidates guessing, i.e. all True or False. Other candidates ticked that the hub was a central computer.

Question 4

This question was well answered but precision was needed to gain full marks. The table contained all the correct answers therefore the correct field names were needed. The syntax had to be followed and most candidates demonstrated this. However sometimes it was difficult to determine the difference between an underscore and a hyphen. Another problem was the misspelling of received and all the underscores missing.

Question 5

Many candidates managed to gain a mark for password and a few for the use of encryption but there were few other answers given. Some candidates thought that a firewall stopped hacking on a system but did not explain this fully and therefore could not gain marks. Some weaker responses did not give sufficiently ICT specific level wording.

Question 6

- (a) Many candidates understood that spam could include viruses etc. and then gave an example of what this could do to the computer system. Some candidates wrote about the spam filling up the inbox. Many however did not gain the third mark.
- (b) Candidates understood what spam emails were but some candidates were not able to put their answers into a form that answered the question. The question referred to identifying a phishing email not what one was. Many candidates gained at least two marks. Some candidates answered that spam had attachments, but so does legitimate email.

Question 7

Most candidates gained some credit for answering this question. Many students explained it was a restricted network but some just stated what the acronym meant rather than the purpose of the intranet. Better responses clearly identified the use within the company.

Question 8

This question was either well answered or not well answered. Some students misread the question and gave responses that explained how the expert system was created. Those candidates who identified that it was the operation of a car fault diagnosis system produced good answers. However, some candidates still think that only one solution is produced from this type of system.

Question 9

- (a) Well answered by the majority of candidates. However, some candidates were vague in their answers about the effect it would have on the computer or the computer system.
- (b) Some good answers but far too many candidates answered about not opening sites when the question was about protection from emails. Common correct answers related to antivirus but other precautions were mentioned but only by the better candidates and few made three sensible points.

Question 10

- (a) This question was well answered. The only problems being the vagueness in the answers like name, rather than name of recipient and references to magnetic ink characters.
- (b) We allowed answers that took into consideration the modern processing of cheques using smartphones but few students answered this way. It was clear that some candidates understood how cheques were cleared but lacked details. Many candidates wrote about the checking process rather than the process of clearing the cheques. As in previous questions the depth of answer was an issue.

Question 11

- (a) Candidates lost marks by not being clear enough in answering the question and therefore did not explain the process. Making the table gained marks but the merging of the cells etc. was not clear enough. Better responses described the actions needed, e.g. 'highlight the heading and click on bold in main tool bar', weaker responses just stated what was seen, e.g. 'the heading is made bold' and gained no credit. Some candidates mentioned what they would do in a spreadsheet when the question clearly stated that it was a word processor.
- (b) It was pleasing to see that most responses demonstrated a clear working knowledge of this process, with some gaining two marks. There were, however, vague answers like 'right click' without mentioning where in the table.

Question 12

- (a) Many produced a title slide leaving no room for content. Some candidates did not use the specified location, Hyderabad.
- (b) Well answered but some candidates put microphone and other input devices.

Question 13

- (a) Most candidates gained a few marks here for sumif() but quite a few used the wrong range or put elements in the wrong order. A lack of precision in the answer made this question more difficult than it actually was.
- (b) Quite a few candidates wrote tried to abbreviate AVERAGE producing an answer that would not work, therefore only gaining one mark out of the possible two marks available.
- (c) There were problems again with 'explain how the cell could be rounded to two decimal places'. Most candidates managed to gain a mark for this question. The ROUND function was often correctly used while others used the cell formatting dialogue. A few incorrectly decided to format the mark as 'currency'.
- (d) This question was fairly well answered, even by those candidates who did not do well in **part (a)**. We allowed a number of different combinations of answer. The most common mistakes were the use of FALSE and the positioning of the \$ signs. Those candidates who gave a very long nesting IF statement often slipped up on the >=, or the requirements of " " for the grades.

Question 14

- (a) Some candidates listed elements in the technical documentation therefore not answering the question. Most responses that identified programmers/system analysts went on to gain the additional mark for why technical documentation is needed.
- (b) For those who gave a reason why user documentation is needed, and not just what it contained, both marks were opened up.

Question 15

This question was very well answered by the majority of candidates with most gaining at least two of the three marks. Weaker responses did not clearly describe where the calculation would be inserted. Care should be taken with the correct use of brackets [] not ().

Question 16

3D printers was a new question with the change in the syllabus. Candidates managed to gain at least a mark in this question.

- (a) Of the two parts of this question, this part was not as well answered as **part (b)**. Some responses gave the general use of 3D printers. For those who identified the use was for production of prescription drugs, few were able to clearly identify an advantage. Some candidates only answered what 3D printers could do in medicine, for example, prosthetic limbs; some thought the question was about printing prescriptions.
- (b) This question was better answered than **part (a)** with the most popular answer being expensive to buy. For those who identified the use was for production of prescription drugs, most were able to identify at least one disadvantage. Weaker responses just gave vague answers, e.g. 'is expensive' without identifying whether it was the printer or the materials. Most gained credit for mentioning illegal use. Better responses also went on to suggest a breach of Copyright law.

Question 17

- (a) Most candidates managed to gain up to three marks for this question, with a few candidates providing the depth of answer to gain the later marks. This question was an 'explain' question which required candidates to make a point and expand upon it. Most gained two marks for stating never to open emails from unknown sources as they may contain viruses. The use of a spam filter also gained credit for some but only a few went on to mention clearing the spam regularly. Some candidates failed to answer about emails only about the use of the internet.
- (b) There were too many lists, where candidates wrote one answer then added others on the line. The first answer is marked in this type of answering. This question, however, was well answered.
- (c) Candidates tended to mix up this question with the previous one on emails. However, most candidates gained credit for 'strong passwords'. Better responses clearly identified the use of https for sending personal data. Weaker responses did not highlight where personal data should not be used and only stated 'do not give a picture of yourself', better responses clearly stated that this would be on social media sites. Many candidates discussed https but failed to mention sending personal data. Also, discussions around keeping personal data safe in social media tended to be vague as well.

Question 18

Many candidates misread the question believing it to be about the use of the internet. There were some good answers giving level 2. The question related to other devices and a high proportion of candidates did tend to talk about laptops, tablets as though they were not computers. For those who did identify other devices, it was hard to find a suitable description of the benefits or drawbacks. Many gave unhealthy lifestyles or online shopping/banking which was not part of the question. Most candidates did not give a sufficient discussion from both sides of the argument to gain marks above level 1.

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/21
Practical Test A

Key messages

The new syllabus is becoming familiar to candidates. Setting paragraph styles is more regularly seen, the relational database activities do not seem to be presenting problems and the mail merge tasks are well done. There was little or no evidence of internet use for help or content, with the theory-based questions answered specifically from individual work done. Cutting off the internet access may cause computer dates/times not to be updated and give apparently wrong dates for the examination. If observed in the Centre, either for an individual candidate or for a group of candidates, then this can be explained on the supervisor report form. Punched holes used for treasury tags, etc., should not be used as they may obscure vital text such as report heading, etc.

General comments

The paper covered all the applications expected and was tackled well by many candidates. While there were some challenges for the most able candidates, the paper enabled all candidates to demonstrate their skills in all parts. The document editing and mail merge were done well. The database involving three related tables and subsequent reports was undertaken reasonably by most candidates, while the presentation, with slide content based on theory questions derived from the database input form created and amended by the candidate, proved a challenge to most. Many candidates appeared to be well prepared for the demands of the paper.

Comments on specific tasks

Task 1 – The Evidence Document

In most cases this was present with most of the evidence gathered during the examination. Rarely, screen-prints were hard to read.

Task 2 – Preparing the Presentation

At this stage, a presentation was set up ready for later use. The slide master was created to contain specific elements and this was usually well done. These elements were then applied to all slides of a file imported into the presentation. The first slide was reformatted in layout to become a title slide. The file was then saved and set aside for later use. Setting up the presentation was generally well done, the main errors arising from the placement of the text at the top of each slide and the positioning/display of the slide numbers.

Task 3 – Document Editing

The task contained many familiar activities such as page setup and layout, formatting of tables, editing and placing an image, and proofreading/spell checking the document. These were well handled for the most part. When saving the document, the specification was to save with a new file name in the format of the software being used. This meant to save, not in the rich text format in which the file was provided, but as a .doc(x) or .odt file, etc.

Candidates are expected to define paragraph styles to match a 'house' style. One of the benefits of the use of paragraph styles is the consistency and control they give to the overall layout of a document. A good proportion of the candidates did define new styles as was evidenced in the body text (WS-Body) style definitions. The other styles were marked on the appearance of the text to which they were applied. Candidates did not gain marks for the body text style if they simply applied the attributes to all relevant text but did not provide evidence of the style being named (i.e. the style would be unrepeatable). Use of the styles gave a generally more consistent overall layout to the text in the document.

An image was placed in the header of the document along with other specified items. The header and footer tasks were generally accurately carried out. A table with content from an existing file was placed in the text. The table contents were edited and formatted using one of the user-defined paragraph styles. The formatting applied to this table had to be repeated for an existing table in the text with the intention of improving consistency of presentation in the document. These two tasks were generally done well.

Task 4 – Database Reports

The task first involved the import of three files provided in .csv format into a new database using a suitable software package.

The first of these (Boards) was straightforward to set up with appropriate field types. The second (Trees) could use the default field types, while the third (Locations) anticipated that the candidate would recognise that a field containing telephone numbers should be set as text not numeric. As these would not be used for calculations, it is common to set the data type to text and candidates were left to make this judgement. Relatively few candidates remembered to make this a text field. Most candidates provided evidence of the primary key fields for both tables, and even if not in the table structure screenshot, this could often be seen in the relationships view. The one-to-many relationships between the tables were almost always accomplished without error.

Candidates were required to make a simple input form and enter a new record into it. While many candidates did produce a form, a small number did not and simply presented a view of the table. The new record sometimes overwrote the first record instead of being added as a new record.

At step 26, there was now an opportunity to develop the form to make it easier to use. This was not just generally about good form design, but also required thinking specifically about the user experience. Use of drop down choices, giving user notes or replacing field names with more meaningful text were examples of appropriate answers.

The candidate was then required to apply improvements that they deemed to be appropriate to the form they had created and illustrate what they had done.

At step 28 the candidate was asked to evaluate the improvements they had made. This required not only a description of what they had done, but reasons why they considered these to be improvements. The evaluation had to be based on their own improved form and features that they identified.

The method for expressing answers to steps 26 and 28 was to insert them as points on the presentation slides. This completed the presentation task.

The first report (step 30) was a simple selection on two criteria, but drew fields from all tables, so required the relationships to have been set up correctly. A new calculated field was created with a simple calculation which was generally successfully achieved, but setting the display to three decimal places was commonly done inaccurately. Sorting of the records on the three criteria in order was often achieved successfully. The data, while not always shown in full, usually fitted to one page wide in landscape layout. Calculating the total value of these selected boards proved problematic for some, as it involved more than just a sum of values. Some candidates achieved this in the sum formula, while others made a new calculated field and totalled this.

The second report was quite straightforward for those who tackled it and was frequently well done. Some errors derived from not using a wildcard in the search, or sorting in descending instead of ascending order.

Task 5 – Mail Merge Letter

The mail merge task was frequently well done. The most common errors were seen in the spacing of the address and salutation fields and in evidence of the date set as a field and formatted as specified (dd/mm/yyyy). The selection of only the three specified recipients was usually accurately achieved.

INFORMATION AND COMMUNICATION TECHNOLOGY

**Paper 0417/31
Practical Test B**

Key messages

Where screenshot evidence is required, candidates must make sure that the screenshot is large enough to be read. Many candidates produced screenshots that were so small that the evidence was illegible. Similarly, some candidates over cropped screenshots resulting in important elements not being visible. For example, in the screenprint of the spreadsheet, showing evidence of adding text and formatting, the row and column headings were sometimes missing from the printout.

Centres should not staple the work. Care should be taken when punching holes for string; often the holes are through some of the evidence the examiners need to see to be able to award marks for example the title or header details.

A small number of candidates did not print their name, Centre number and candidate number on every document submitted for assessment. It is important that candidates do this, as without clear printed evidence of the author of the work, marks cannot be awarded for these pages. It is not acceptable for candidates to hand annotate their printouts with their name.

Some candidates submitted multiple printouts for some of the tasks without crossing through those printouts that were draft copies. It is important that candidates cross through the printouts they do not wish examiners to mark.

General comments

Most candidates completed or attempted all elements of the paper. Many candidates appeared well prepared for this examination and the majority who submitted their work showed sound knowledge, skills and understanding.

The paper gave a good spread of marks across the entire mark range. The website authoring section of the paper was the strongest element. Candidates found some tasks challenging, particularly those which required them to provide four questions relating to testing hyperlinks before uploading a web site and evaluating a background image in a web page. Candidates were also required to edit a cascading stylesheet using the most efficient syntax. Many candidates did not use the most efficient syntax when amending the stylesheet.

There were fewer typographical errors in both the website and spreadsheet elements of the paper than in the previous year.

Comments on specific questions

Task 1 – Evidence Document

This task was completed well by most candidates.

Task 2 – Web Page

The majority of candidates downloaded the required images and stored them as instructed.

Question 1

The majority of candidates created a table structure as required, with the correct dimensions. Some candidates created a web page without adding the required cell dimensions. Many candidates did not include evidence in the markup or the stylesheet to show they had set the table borders not to be displayed on the final web page. A number of candidates set the table width to 100% and not 900 pixels as specified.

Question 2

The majority of candidates placed the correct logo image in the correct cell.

Question 3

This question was answered well by the majority of candidates. There were a large number of candidates who omitted spaces between words after the commas in the second line. Some candidates did not follow the line endings as shown in the question paper. A common spelling error was to input 'conversation' for 'conservation'. Candidates should carefully check all data entry.

Question 4

This question was completed well by the majority of candidates. There were some candidates who added an incorrect image for the 'elephant ride'.

Question 5

Although most candidates included appropriate alt tags for the images placed at **Question 4**, few candidates included appropriate alt text for the logo image and therefore did not achieve this mark.

Question 6

All candidates attempted this question. Some candidates were not 100% accurate in the data entry, particularly relating to the use of initial capitals. Candidates should proofread and check their data. Most candidates set the text in style h2.

Question 7

Most candidates set the text in style h3. Some candidates included typographical errors in the text, particularly relating to the use of initial capitals in Hothouse Design.

Question 8

Some candidates did not complete this correctly, using deprecated markup.

Question 9

Most candidates were able to hyperlink the required image to the specified email address correctly and include the correct subject line. Some candidates, although able to create the email link, did not include the subject line correctly. Some candidates did not include the final exclamation mark. Some candidates did not link the correct image and linked the subject line text to the email hyperlink.

Question 10

Most candidates were able to attach the stylesheet correctly.

Question 11

Some candidates completed the stylesheet with 100% accuracy and some had little understanding of cascading stylesheet syntax so gained little credit. Candidates were asked to define the fonts for three styles and to set a background image so it is tiled. The setting of the font-face presented some candidates with problems. Many did not include all the fonts as given in the question paper and did not place speech marks around Corsiva Hebrew. Some candidates erroneously placed the generic font style sans-serif in speech marks. Candidates were told to use the most efficient syntax in the stylesheet. As all three styles contained the same fonts, the most efficient syntax would be to use h1, h2, h3 {"Corsiva Hebrew", Candara, sans-serif}. Few candidates used this syntax, the majority defined the styles separately. The specification for the table was that there should be no visible borders. This setting could have been included in the stylesheet. Most candidates who attempted this placed the instruction in the HTML for the page and some erroneously set the border value to 1 not 0, so that the borders did show. Many candidates did not enlarge the screenshot sufficiently to enable the examiner to see the screenprint without some form of magnification.

Question 12

This question tested the candidates' understanding of testing hyperlinks before a website is uploaded to the internet. Candidates were required to list four questions that could be used within the test plan. Some candidates did not answer this question correctly. Many candidates provided a description of different types of testing and how they would test the hyperlinks rather than questions they would ask. Often candidates did not refer to the specific hyperlinks being tested and the questions were too vague to allow examiners to award any marks. Candidates must be specific, for example 'Does the hyperlink to the email open the email editor?'

Most candidates provided screenshots of the web page and the HTML source. Some candidates did not enlarge the screenshots sufficiently to enable the examiner to see the work without some form of magnification. Some candidates produced a screenshot of the web page in the editor's preview mode rather than in the browser.

Some candidates did not provide a copy of the HTML source in their Evidence Document but provided a link to the location of the HTML. In such cases, no marks could be awarded. Examiners must be able to see the contents of the HTML source to be able to award marks.

Question 13

This question required candidates to replace the original background image and provide a single screenshot of the browser window. Most candidates who attempted this question completed this task successfully. Some candidates provided evidence of the web page in the Editor's preview mode rather than the browser.

Question 14

This question required the candidate to evaluate the change in background image. This was not completed well by the majority of candidates. Some candidates gained some credit for focussing on the lack of clarity between text and the background image, but few provided any further details.

Task 3 – Spreadsheet

Question 15

Most candidates correctly inserted the two new rows at the top of the wages file. Some candidates did not increase the column widths to display all headings fully and many displayed row three in a sans-serif font. Some candidates merged cells A1 to G2 instead of A1 to G1 and the height of the second row was often not reduced. Most candidates displayed the row and column headings. Some candidates cropped the screenshots removing the column headings. Most candidates saved the file with the correct filename. Many candidates did not enlarge the screenshot sufficiently to enable the examiner to see the work without some form of magnification.

Question 16

Almost all candidates who attempted this question completed it successfully. A few placed their name and details on the right and the automated filename on the left. A few candidates placed some or all of the details in the header.

Question 17

Most candidates used VLOOKUP for the pay type but some did not use the correct absolute range. Candidates need to reference only the required cells and not include extra columns or rows in the range. Some candidates did not make the cell widths wide enough to display the formula in full.

Question 18

The formula used by some candidates for the weekly wage did not include an IF statement which was required to return a blank cell if the pay type was not W. Some candidates attempted to achieve the correct results by only inserting formula into the correct cells and leaving other cells blank thus not achieving the replication mark at **Question 20**. A common error made by candidates was to divide the annual salary by 52 to obtain the weekly wage when the question stated that the employees were paid for just 50 weeks of the year.

Question 19

The formula used by some candidates for the monthly salary did not include an IF statement which was required to return a blank cell if the pay type was not S. Some candidates attempted to achieve the correct results by only inserting formula into the correct cells and leaving other cells blank thus not achieving the replication mark at **Question 20**.

Question 20

Some candidates did not replicate the formulae from steps 17, 18 and 19 to all specified rows.

Question 21

Almost all candidates who attempted this question completed it successfully.

Question 22

Almost all candidates who attempted this question completed it successfully. Some candidates did not make the cell widths wide enough to display the formulae in full.

Question 23

Almost all candidates who attempted this question completed it successfully.

Question 24

Almost all candidates who attempted this question completed it successfully. Some candidates lost marks where the integrity of the data had been lost during the process of sorting the extract into ascending order of surname. Some candidates did not widen the cells widths to fully display the contents of all cells.

Question 25

This task was completed well by most candidates.