

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/12

Written Paper

Key messages

Questions that asked the candidates to answer with simple and straightforward responses were fairly well answered but those questions that stretched the candidates were not answered as well.

The depth of the answers given in the longer type questions was lacking with candidates giving simplistic answers. There were far too many instances of candidates guessing answers or leaving the answer blank.

There were far too many instances of candidates giving brand names rather than the generic name for the product. 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 the paper.

Some candidates gave extra answers that were not asked for and therefore not marked, for example, by giving four responses in **9b** when only three were asked for.

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

Comments on specific questions

Question 1

In **question 1** many candidates gave lists, rather than a single response, the first answer is always marked, even if this is incorrect, subsequent answers are not marked.

Candidates managed to answer parts **(a)** and **(b)** well, but less so in parts **(c)** and **(d)**. In part **(a)** a significant number of candidates gave CRT as an incorrect answer and in part **(c)** Graphics tablet and Touch pad were popular wrong answers.

Question 2

This was generally well answered.

Question 3

This was generally well answered.

Question 4 (a) to (d)

Candidates seemed generally unprepared for these questions and often answered with random words or phrases. The words used in the answers are clearly shown in the syllabus. Candidates did better at answering part **(b)** rather than parts **(a)**, **(c)** and **(d)**.

Question 5

The question referred to adding new friends. Candidates tended to answer general questions on the danger of using social media. Some good correct answers though, but many lacked depth.

Question 6

Some candidates gained full marks whilst others only provided examples, with a few discussing the importance of passwords in general without any real discussion of what makes strong or weak passwords.

Question 7

There were a few good answers for this question; but most candidates were vague and verbose with a surprising number assuming the GPS satellites did all the processing and were in almost continuous communication with the Satnav in the car. Many candidates thought that the satellites calculated the route; some however produced good answers but did not explain them fully. Some candidates incorrectly thought that the car sent signals to the satellite.

Question 8

A few candidates appeared to have a clear understanding of the process of sending data from one network to another, but many candidates showed no understanding of the process. Those who realised that this was about how data packets travel from one network to another network gained some good marks, but there was a lack of detail in the answers given. There was also some confusion with the use of IP/MAC addresses. Listing of the devices was not sufficient in this question, there had to be understanding of how the data flowed between them. Many candidates discussed the use of e-mails, file sharing on the cloud, by email, or even physical transfer using flash memory sticks.

This question differentiated between those candidates who had some technical knowledge from those that did not.

Question 9

The few candidates gave good answers for this question.

- (a) Candidates were unsure about physical faxing and electronic faxing, with a number of answers mentioning the need for telephone lines and fax numbers but most went for weaker answers such as 'both are ways to send documents' and 'both could be used as legal documents'.
- (b) This question was answered to a similar level of detail as part (a), few candidates could find three valid similarities. Many wrote a comparison but did not expand upon it, for example, e-faxing is faster.

Question 10

Part (a) was often better answered than parts (b) and (c).

- (a) Most candidates could respond with at least two correct items. Wrong answer included 'age' and in a few cases a description of the hardware in the RFID system.
- (b) Many candidates knew radio frequency signals were used to read the RFID data but few knew any technical details of the process. Some candidates answered this question relating it to searching/comparing the database but the question was about reading the data. Some candidates believed that the data was read from a bar code.
- (c) Surprisingly few candidates scored marks. Many candidates again explained that the data was being read without any mention of why using RFID technology is used and others said it is faster without any explanation of why that is an advantage.

Question 11

Most candidates scored some marks for this question.

- (a) Candidates generally answered this question well, with candidates sticking to the fields given. There were a few candidates producing a table or a database table design view, rather than a screen form, candidates need to ensure that they have read the question thoroughly.
- (b) Better candidates were able to name and correctly describe the validation checks. Some did not describe the checks and a few described verification instead. In the length check many candidates missed the space and therefore lost a mark. Many candidates managed to correctly identify the range check but few managed the length or format check.
- (c) There were a great many detail errors in the search criteria so few scored full marks. The most common mistake was using AND instead of OR. Some candidates failed to gain marks as the field names were incorrectly written. Many students added extra = and " ", especially around the 1.4. This question was answered better than part (b).
- (d) Most scored one of the two marks for this by including two of the four examples that the correct search would produce. Even candidates that gained few marks in (c) did better in this question.

Question 12

Spreadsheets appear to be fairly well understood by most candidates.

- (a) This answer was usually correct with a few using x instead of * as the multiplication operator.
- (b) Many candidates gained high marks for this question. A few candidates missed out the referencing and some candidates used the wrong cell references.
- (c) Candidates understood the idea of absolute referencing but had difficulty explaining this fully in their answers. This resulted in a number of candidates scoring low marks on the question.
- (d) Usually correct, but a few candidates used repeated addition or used a sum function and then listed all the cells to be added separately instead of using a cell range.

Question 13

Many candidates scored at least two marks for this question.

- (a) Many candidates knew what HTTP stood for but most were unable to explain what it is or why it is important. Some simply said it is what you put at the start of a URL. Some candidates wrote that the HTTP was an internet protocol, copying what was written in the question.
- (b) The addition of security was known by many candidates but encryption or SSL were mentioned less often. Some thought that the S stands for server or social as in social network and some candidates thought it was the plural of HTTP.

Question 14

A few correct answers for this although many lacked detail. A lot of answers were from mark schemes for previous papers such as inappropriate sites, slow connections, incorrect or outdated content. Some candidates thought it was opening sites not searching for them.

Question 15

Many candidates were able to state what .txt and .rtf meant but most explanations of the differences were vague. Some candidates thought that .rtf files could not be edited – possibly confusing them with .pdf.

Question 16

This is a new style question. Most candidates had a reasonable number of sensible ideas for this but quite a number thought it would be a good idea to include sounds, videos or animations and some wrote vague things like 'change the text'.

Question 17

This is a new style question. Many candidates recognised the two reflections in the y axis but the description of the rotation at stage 2 frequently did not state the centre of rotation and many candidates ignored the filling of the shape in black at stage 3.

Question 18

This question was not well answered by most. Candidates generally manage to use section breaks successfully in the practical examination but there were few correct descriptions here of their use in formatting. Many students mixed up section breaks with page breaks. Some candidates thought that section breaks made the document look neater, without explaining why this was the case.

Question 19

The way that this question is marked is new for this syllabus, namely a level of response as shown in the specimen paper. Some candidates answered using their knowledge taken from the mark scheme of a question from a previous examination and explained the processing involved in withdrawing cash from an ATM or discussed the use of credit and debit cards in general without any reference to security. Some candidates only answered about Chip and PIN and no other types of card system therefore reducing the marks that could be awarded. Some candidates did have sensible things to say about contactless cards and paying using mobile phones, but many did not expand on the ideas. Many believed that magnetic stripe cards were contactless or that they had no security. A few candidates gave a reasoned conclusion and therefore achieved a level 3 mark.

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/21
Practical Test A

Key messages

In the new version of the syllabus, access to the Internet is not permitted during the examination. This is partly because the paper now addresses Assessment Objectives AO1 (Knowledge) and AO3 (Analysis and Evaluation) as well as having a primary focus on AO2 (Practical skills). The theory questions should not be answered as a result of searching on the Internet. Some candidates appeared to have been allowed to access the Internet during the examination and copied the information from there. The use of the Internet or email is a breach of the regulations for this syllabus and could lead to candidates being disqualified from the whole of the 0417 qualification.

General comments

The new layout of the question paper makes clear and unmistakable reference to items to be placed into the Evidence document and clearly specifies when printouts are required. The practical test paper contains evidence of new skills to be learned and tested. These include, in the document editing, the creation and application of paragraph styles and also the production of mail merged letters. The database section now includes relational databases with the linking of two or three tables. The creation of a data input form was also tested in this paper. These tasks were tackled well by a good number of candidates. The details will follow in the report.

The two theory questions asked were; one on knowledge of Phishing, a question that has been asked in similar ways over the years in Paper 1, and one as a specific evaluation question which was not well answered by the majority of candidates. Some tasks were more open to individual interpretation than has been customary, for example, the structure of the master slide in the Presentation, but this was well handled by many candidates.

Comments on specific questions

Task 1 – The Evidence Document

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

Task 2 – Document editing

The task contained many familiar activities such as page setup and layout, formatting of a table, editing and placing an image, and proofreading/spell checking the document and these were well handled for the most part. The image did have to be rotated through 180 degrees and cropped from the right side. If cropping preceded the rotation, the image was sometimes cropped from the wrong side. 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.

The new skills were the creation and application of paragraph styles within the document. This is an updated variant on the application of attributes to specific text in the document. Some candidates clearly attempted to do this (i.e. apply attributes to highlighted text) and did not create new paragraph styles. One of the benefits of the use of paragraph styles is the consistency and control they give to the overall layout of the document. A good proportion of the candidates did define new styles as was evidenced in the body text (MC-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.

Task 3 – Database Report

The task first involved the import of two .csv files into a new database using a suitable software package.

The first of these (Employees) was straightforward to set up with appropriate field types. The second (Offices) required the candidate to force two of the fields to be text instead of the numeric field type that the software might propose. All fields were to be set as text, even though the postcode and telephone fields contained only numeric data. As these would not be used for calculations, it is common to set the data type to text and this was instructed in the paper. 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 relationship between the two tables was almost always accomplished without error. Occasionally candidates were confused about the proper relationships or connected incorrect fields.

Newly seen in this revised version of the syllabus was the creation of an input form. This has often formed a task in Paper 1, but is now tested practically. On this occasion (Step 21), there was only a need to make a simple input form and enter a new record into it. While many candidates did produce a form, a significant 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.

The report (Step 22) was a simple selection on two criteria, but drew fields from both tables, so required the relationship to have been set up correctly. A new calculated field was created with a simple calculation which was generally successfully achieved. Two common errors were the presentation of the specified fields in order and the setting of currency values to display no decimal places. Sorting of the records by family name was usually correctly carried out. The data, while not always shown in full, usually fitted to one page wide in landscape layout. The overall total of bonuses paid was usually calculated correctly. The label and the title for the report sometimes contained errors including, most commonly, the name of the city Ahmedabad.

Task 4 – Database Labels

The second report (Step 23) proved to be a quite familiar one of producing labels, but was still quite testing. The selection criteria involved a wildcard search on Engineer and both Mumbai and Bangalore offices. Getting all these three criteria correct taxed many candidates. The intention was to create badges for a meeting, so field names were not actually required on the labels as had been the case in previous examples of this type of task, but their presence was not penalised. The two fields First_Name and Family_Name were preferably presented with a space between them. The job description on a new line was generally achieved. Each label had a title and this was to be in a larger font size. Accurate entry of this text and formatting to be larger was achieved by many candidates. Most placed their personal details on each label.

Task 5 – Mail merge Letter

This (new) task at Steps 24 and 25 was frequently well done. It does, of course, bear some relationship to the previous task of producing labels. The most common errors were seen in the spacing of the address and salutation fields and evidence of the date set as a field and formatted as specified (dd/mm/yyyy). The selection of only the two specified recipients was usually accurately achieved.

Step 26 was the first of the theory questions and it addressed Assessment Objective 3. The purpose was to evaluate the use of mail merge to produce the two letters. A description of the processes of creating a mail merged letter was not acceptable. The evaluation required discussion of some advantages or disadvantages of using mail merge for this purpose, with a possible discussion of advantages or disadvantages of some other method of communicating this information to these two recipients. For a final mark a reasoned conclusion was expected. Very few candidates did more than describe the processes and very few related the evaluation to the context of this task. A conclusion was very rarely seen. Evaluation questions should be familiar from the theory paper.

Task 6 – Presentation

The Presentation task was based on the familiar skills, previously tested in former papers, of creating a slide master and applying the design to all slides. The difference in approach was to give the candidate freedom to design the slides as they wished, requiring at least four different features only. This was well done by many candidates, some of whom applied templates, or provided evidence of animations and transitions.

The content of the slides formed the theory question to address Assessment Objective 1. The subject was to provide information about Phishing. As this was a theory question and no access to the Internet is allowed during the examination, no marks could be gained from answers copied from the several websites that were identified by examiners. It did appear that some candidates did have access to the Internet and used that facility to find answers to the question. This is not permitted in this version of the syllabus and could lead to candidates being disqualified from the whole of the 0417 qualification. In using results of web searches, candidates often found information which was wider than just Phishing, including Pharming and Vishing, etc. This often led to incorrect answers on how to identify an instance of Phishing and how to protect oneself from such attacks.

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/31
Practical Test B

Key messages

This was the first series of the revised 0417/31 syllabus. Overall fewer candidates achieved excellent results on this paper compared to papers in the previous version of the syllabus. This was mainly due to the inclusion of theory questions which required the candidate to answer questions relating to the theory of test plans and the evaluation of a web page. The theory questions should not be answered as a result of searching on the Internet. Some candidates appeared to have been allowed to access the Internet during the examination and copied the information from there. The use of the Internet or email is a breach of the regulations for this syllabus and could lead to candidates being disqualified from the whole of the 0417 qualification. The paper gave a good spread of marks. The website authoring section of the paper was the strongest element. Candidates were also required to edit a cascading stylesheet using the most efficient syntax which caused most candidates a number of issues.

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

There were a significant number of typographical errors in both the website and spreadsheet elements of the paper. Many of these inaccuracies could have been avoided with more careful checking and correction.

Candidate responses included screenshot evidence of the work. The majority of candidates produced screenshots that were so small that the evidence was illegible and marks could not be awarded. Candidates must make sure that is large enough to be read. Where Examiners are unable to read the materials presented, they cannot award candidates the marks.

Similarly, some candidates did not achieve full marks as a result of presenting screenshots with important elements being cropped for example evidence of the webpage being in a browser, or where only the top part of the webpage is shown when two screenshots are required to show the full web page. A number of screenshots of the html code were also incomplete.

Centres **should not** staple the work. A hole-punch to tie the work together with string is acceptable but often the holes are through some of the evidence the Examiners need to see to be able to award marks for example the header details. A number of candidates lost marks due to the holes taking out some of the header text being marked.

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 by the Examiner for these pages. It is not acceptable for candidates to hand annotate their printouts with their name, as there is no real evidence that they are the originators of the work.

Some candidates submitted multiple printouts for some of the tasks and as instructed crossed out those printouts that were draft copies. If multiple printouts are submitted without draft versions being crossed through, only the first occurrence of that page will be marked. It is important that candidates cross through the printouts they do not wish examiners to mark.

Comments on specific questions

Task 1 – Evidence Document

This task was completed well by most candidates.

Task 2 – Website authoring

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

Question 1

The majority of candidates created a table structure as required, most with the correct dimensions. Some candidates created the webpage without adding cell dimensions as requested. Many candidates did not include the markup to not display table borders on the final web page. A number of candidates did not set the overall table width to 900 pixels, putting in a different figure, or setting the table width to 100%.

Question 2

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

Question 3

This question was answered well by most candidates. There were a large number of candidates who omitted spaces between words or who added spaces before the commas. There were some candidates who added capitalisation to some of the words.

Question 4

This question was completed well by the majority of candidates. There were some candidates who added the incorrect image for the 'builder making a wall' and 'the beach front café'.

Question 5

Although most candidates included the alt tag for the images of properties, most candidates did not include the alt tag for the logo image and therefore did not achieve this mark.

Question 6

All candidates attempted this question. Many 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

Although question 7 was completed well by many candidates, there were a significant number of typographical errors in the text, particularly relating to the use of initial capitals. Most candidates set the text into style h3.

Question 8

Most candidates completed this correctly.

Question 9

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

Question 10

Most candidates were able to attach the stylesheet correctly.

Question 11

Some candidates were able to complete the stylesheet with 100% accuracy and some had little or no understanding of cascading stylesheet syntax so gained few marks. Candidates were asked to define the fonts for 3 styles and the font size for one of the styles. 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 **Trebuchet MS**. Some candidates erroneously placed the generic font style **sans-serif** in speech marks. A considerable number of candidates set the font-size in px not pt. The specification for the table was that there should be no visible borders. This setting could have been included in the stylesheet. 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 work without some form of magnification.

Question 12

This question tested the candidates' understanding of developing a test plan. Very few candidates answered this question correctly. Many candidates provided a description of different types of testing and how they would test the hyperlinks. Candidates were expected to provide details of what would be included in a test plan i.e. identifying the element to be tested, the expected outcome, actual outcome and remedial action. Many candidates misread the question and thought that this question referred just to the web page created for this exam, not 'a website'

Most candidates provided screenshots of the web page and the HTML source. Many candidates did not enlarge the screenshots sufficiently to enable the examiner to see the work without some form of magnification.

Question 13

This question required candidates to evaluate the web page they had created. Many candidates who attempted this question did not gain any marks as they provided a description of the web page rather than an evaluation of the web page and its contents.

Task 3 – Data analysis – Spreadsheet

Question 14

This question was completed well by the majority of the candidates. Some candidates did not reduce the height of row 2 as shown in the image on the question paper and some did not display the text in row 3 in italics. Many candidates did not enlarge the screenshot sufficiently to enable the examiner to see the work without some form of magnification.

Question 15

Almost all of the candidates who attempted this question completed it successfully.

Question 16

Most candidates completed this step successfully. Some candidates did not narrow the column widths or wrap the text in the headings as shown in the question paper. Most candidates displayed the row and column headings. Some candidates cropped the screenshots removing the column headings. Many candidates did not enlarge the screenshot sufficiently to enable the examiner to see the work without some form of magnification.

Question 17

Although most candidates completed this step there were a number who did not use the ROUND function.

Question 18

Most candidates attempted this question as instructed, although many used the ROUND function instead of the ROUNDUP function. Many did not use the most efficient method of adding the 10 rupees to the calculations for example $10+7.5$ and $10+F5*1.5$ instead of $=ROUNDUP(10+IF(F5<6,7.5,F5*1.5),0)$. Some candidates failed to use the IF function correctly and created two separate conditions, $IF(F5<6$ and $IF(F5>6$,

therefore providing no solution for the condition $F5=6$. Some candidates only added the 10 to one of the alternatives for example adding to the 7.5 but not the $F5*1.5$.

Question 19

Many candidates completed this step successfully. There were significant numbers who did not include the correct cell reference or formula. Instead they included a general comment of "IF" or included a sentence suggesting that the IF formula was to be tested. Some candidates did not replace the letters A and B with suitable headings. Some candidates did not include suitable test data. Most included values above and below 6 but did not include 6 to fully test the formula. Some candidates included additional text in the test data column. Candidates were required to manually calculate the expected outcome using the method described in step 18 not their own formula, and then provide evidence of testing each of the test data values in separate screenshots. Many candidates did not enlarge the screenshots sufficiently to enable the examiner to see the work without some form of magnification. Some candidates only provided one screenshot showing 3 tests on separate rows.

Question 20

Many candidates who attempted this question did not format all monetary value to 2 decimal places. Some candidates also formatted the Area figure to 2 decimal places.

Question 21

Almost all of the candidates who attempted this question completed it successfully.

Question 22

Almost all of the candidates who attempted this question completed it successfully.

A small number of candidates did not print the spreadsheet on a single page.