INFORMATION AND COMMUNICATION TECHNOLOGY

| Paper 0417/01 |
| Written |

General comments

Candidates performed much better this year. Candidates appeared to have sufficient time to record all their answers with very few candidates failing to answer all questions. There were a number of very high marks and few very low marks. Candidates found difficulty with the chip and pin question as well as the question about analogue to digital conversion. The tendency of some candidates to learn answers from previous mark schemes off by heart continued; this led to many strange answers, particularly to **Question 19**. This practice can cause candidates to lose marks as they clearly do not necessarily understand the concepts they are memorising. The wide scope of applications employed in questions on this paper meant that candidates were unable to gain high marks unless they had revised thoroughly. In addition, there were aspects of Systems Analysis which a number of candidates appeared to be unfamiliar with. Many candidates failed to name methods of implementation. Very few candidates appeared to understand network devices and how they work.

Computer modelling, proved to be a topic which a number of candidates showed little familiarity with. Many gave reasons for using computer models which were only appropriate for a measuring or control scenario.

Comments on specific questions

Question 1

A surprising number of candidates failed to gain full marks. The incorrect answers usually related to magnetic ink characters or optical marks.

Question 2

The great majority of candidates gained both marks but a small minority gave the answers buzzer or graph plotter.

Question 3

Most candidates did well, but some answered the use of encryption incorrectly.

Question 4

Many gained two marks and some candidates gained full marks. Common errors were bank cheques for (b) and dot matrix printer for (d).

Question 5

Most candidates scored highly on this question.

Question 6

Candidates answered this very well with many gaining full marks. Marks were lost by a few candidates who gave left instead of right and a small minority of candidates omitted one instruction causing them to lose a mark.

Question 7

Overall this was not well answered.

(a) Most candidates did not know of hybrid or tree network.

(b) Candidates did much better on this question although a few answered ring.

(c) The majority of candidates did not appear to have any knowledge of these devices although a very small minority did gain full marks.

Question 8

This was the best answered question on the paper with nearly all candidates gaining full marks.

Question 9

This was a well answered question although a small number of candidates confused the two methods and some seemed to think that automatic cookers used batch processing and scanning school registers was a real time system.

Question 10

On the whole this question was answered well.

(a) A number of candidates gave a cell reference of a letter. The majority of candidates, however, gained the mark.

(b) This question was answered well by the vast majority of candidates.

(c) This question was answered very well.

(d) This part of the question was answered incorrectly by many candidates. Some used ' x ' for multiply instead of ' * '.

(e) Most candidates did well on this question but a number gave absolute cell referencing as an answer.

Question 11

Candidates did not do as well as expected on this question.

(a) Most candidates were only able to give one or two methods. Too many candidates did not know how analysis is carried out.

(b), (c) The vast majority of candidates had no concept of verification or why it is used and were unable to name a method. Some candidates got double entry, but even then did not appear to understand the role of the computer in this type of verification.

(d) A surprising number of candidates were unable to come up with four correct answers with many only getting name and address.

(e) This was the poorest answered question on the paper with few candidates scoring even one mark. Candidates appeared to be unfamiliar with this method of data entry.

(f) Candidates did quite well on this question with many gaining full marks.

(g) Some candidates appeared to be unable to name any of the methods but most candidates scored highly.

(h) This was generally a well answered question although printing out a list of queries and program listing were often given incorrectly.

Question 12

(a) Candidates did not do as well as expected with a number giving CAD examples or just design projects.

(b) This part of the question was poorly answered with several candidates giving answers more akin to control or measuring with answers such as 'more accurate', 'can work 24/7' etc..

Question 13

Many candidates gained at least three marks. Quite a number managed to tick at least one incorrect response; these were distributed among the incorrect possible answers.

Question 14

(a) The majority of candidates gained both marks.

(b) The majority of candidates gained both marks but a number ticked comfortable chair.

(c) Very well answered but a small number thought that hacking was a safety problem.

(d) A well answered question but a number thought that anti-virus software was correct.

Question 15

Candidates struggled with this question. Many ignored the input methods and wrote about spreadsheets and databases.

Question 16

(a) A well answered question with many candidates scoring well.

(b) Candidates scored reasonably well but several failed to mention the role of sensors in the process.

Question 17

Being a discuss question, this question was aimed at the higher ability candidates. Candidates scored reasonably well but the majority failed to score more than half marks. A substantial number attempted to explain how video conferencing works without discussing the advantages and disadvantages.

Question 18

This question, along with question 19, proved to be the most difficult questions for candidates. Few candidates appeared to know how chip and PIN systems actually work. It was, therefore, hardly surprising that they were unable to compare it with a magnetic stripe system. A small number of candidates scored well and clearly understood the system.

Question 19

Very few candidates understood the term 'bulletin board'. Many thought it was a paper version of a 'notice board'. Most candidates appeared to know what faxes and emails are is but had limited detailed knowledge of them. This prevented candidates from being able to give anything but a very limited list of advantages and disadvantages.

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Paper 0417/02

Practical Test A

General comments

Overall the paper worked well, with some candidates producing fully worked and very accurate papers. The marks then covered the full range to zero. The paper started with familiar tasks of acquiring source materials via e-mail and Internet search followed by document editing and formatting that would have given access to up to half the marks. Some candidates did not print this document, and this may have been due partly to the fact that the instruction to print came at the end of the integration section of the paper and at the time of creating an outgoing e-mail message. Candidates need to be reminded of the need to print all of their documents as the end of the examination is approaching, even if they have not completed all tasks to this point.

At various points in the paper, candidates are reminded to spell-check and proof-read their document. This is not intended to be a test of their knowledge of English grammar, so no grammatical errors are intended to be present in the document. If spelling errors are deliberately inserted into the document, then these are checked during the construction of the paper to be very obvious first or unique spelling suggestions in the dictionary. Other words that may be changed by candidates will not attract penalties – an example from this paper was "staff" which was changed to "staffs" (presumably as grammar suggestion but which was incorrect in this context). The proofreading skills are a reminder to the candidate to check overall layout and consistency in the presentation of the document. A long document with margins set to inches instead of centimetres should alert the candidate to check back with the paper. Similarly, reports running to many pages will also generally indicate some error of selection.

Comments on specific questions

Section A

Question 1

This is an initial email that provides the first file to the candidate and gives instructions to search for, download and save another file. No printed evidence of this message is required.

Question 2 to 4

One or more screenshots should provide evidence of the successful search, with the correct file found and ready to save. This was provided by many candidates.

Question 5 – load a file

The correct document file was accessed either from the file identified and saved from the Internet search or, in case of Internet problems, from a local search, or in last resort by provision of the file to the candidate.

Questions 6 to 13 – format page layout and set up body text

The page was mostly set to landscape as specified, but margins / page size were incorrect in a significant number of candidates' work. The body text was mostly correctly formatted to two columns with a correctly selected font type, size, alignment and spacing, but all possible errors of single column, incorrect column spacing, sans-serif font, single line spacing, inconsistent alignment or point size were observed.

Questions 14 to 23 – create a title page

The title page with single column layout, showing a correctly entered and formatted heading and sub was generally well executed, although errors of font family, spelling, alignment, column layout and posi the page break were all observed. The subheading was sometimes underlined as well as italicised.

Question 24 – insert and position header and footer items

The header and footer items were almost always correctly placed, but the centred and right aligned ones sometimes did not match the margins of the document text. An automated page number was not always inserted at the bottom left of the page. These items were not to appear on the first page and many candidates knew how to control this, although a significant number were not able to demonstrate this skill.

Questions 25 and 26 - edit text

The correct paragraph was generally moved to the correct place. This often gave rise to the need for the proofreading check to ensure that consistency of paragraph spacing and document integrity was preserved. The numbered list was usually modified correctly to a bulleted list.

Question 27 – enter text

The new text was almost always added with great accuracy, but was sometimes not formatted to match the body text of the document.

Questions 28 to 34 – edit and format text in a table

The staff details text was usually found in the .csv file and copied and inserted into the table in the correct place. Any errors introduced into this text were treated as incorrectly copying the data from the source file. The correct column and row were generally correctly identified and deleted. The column heading data was usually correctly formatted and the background of this row shaded correctly. There were errors which consisted of shading the text and not the row or shading the wrong row, and in formatting the appearance of the text. The most common errors were the allowing of text wrap and the failure to show all borders when printed.

Questions 35 to 36 – find and insert an appropriate image

An appropriate image was generally found and positioned in the correct place in the text, but there were or some who did not place the image accurately relative to the text or did not set text wrap or resize the image to fill the column width.

Question 37 – save with a new file name

The document was saved here using a new file name. This filename would be seen to be different from the original source file when attached to the outgoing email at the end of the examination.

Questions 38 and 39 – set up a database field structure and import data

The evidence of the field structure was generally provided and correct. The formatting for the *Price* field was checked on the report to see it was correctly applied to two decimal places. It was noted that some regional settings would not (in a simple way) enable correct import of date data in the format day/month/year if date format was expecting month/day/year. In this case dates past the twelfth of the month would not be recognised or imported, leaving blank data in the date field for a large number of records. To alleviate this difficulty, CIE prepared and made available, alternative source files in which the data was formatted for month/day/year, notifying Centres of this arrangement. Some candidates did import the data with date errors and allowance was made for this when noted in the reports.

Questions 40 and 41 – add records

The three records were generally accurately added to the database and were seen in the *Week 37 sales* report.

Questions 42 and 43 – create and format a report

Of the candidates who tackled the database questions, this was the most frequently produced report it was largely correctly structured, but errors in setting adequate field width to display all data made check of sort order and accuracy of data entry impossible to verify. The creation of the calculated field and formatting of its data was generally accurately carried out. The total value calculation, formatting of this data or presenting the associated label accurately often produced errors but was generally well managed.

Questions 44 and 45 - create and format a report

This report was frequently well executed often attracting full marks. There were errors of record selection on all the criteria and the order of sorting records on two fields was sometimes incorrect i.e. S*taff* then *Date* instead of *Date* then *Staff.*

Questions 46 to 48 – create a summary report and integrate into the text document

The summary report was similar to previous papers. When available, it was generally placed correctly in the text document. Sometimes with both counts and sums, sometimes only sums or counts and sometimes incorrect values calculated for one or the other (most commonly the counts). If values were incorrect due to errors in adding new records (e.g. missing or added twice), the allowance was made for the variations in values resulting from this error traced back to the *Week 37 sales* report.

Questions 49 to 54

A chart was to be created based on the summary report above. The data chosen was to be the number of sales, not the value of sales, but if there were errors in producing the count of sales, then this was treated as a follow through error. The chart was to be displayed with a title and segment labels and values. One segment was to be emphasised by pulling out that segment or by highlighting it (a provision for candidates who may have software that does not allow for withdrawal of segments).

Questions 55 and 56 – check, save and print document

The document was to be saved and printed at this point with a reminder to spell-check and proof-read again. A number of candidates, who might have done work on the text document, did not present any printed evidence for this work.

Questions 57 to 59 – prepare an e-mail message and attach a file

The email message was generally well done. There were accuracy errors (e.g. ucles for cie was not accepted) and sometimes the blind copy did not show up – indicating a need to check the software to ensure it will enable all evidence to appear. Some candidates may need a separate screen shot to show this and such evidence would be quite acceptable. The file to be attached was the candidate's own saved work and hence a wide range of file names and extensions were accepted. These included .rtf, .doc, and zipped file extensions, however the original source file name and .rtf extension was not accepted. Some Centres reported long attach and upload times for candidates as this was a larger file than usual. This caused some natural anxiety to candidates, but the document is marked from the printout and the email evidence from a screenshot.

INFORMATION AND COMMUNICATION TECHNOLOGY

> **Paper 0417/03**
>
> **Practical Test B**

General comments

The majority of candidates completed all elements of the paper. Fewer candidates omitted sections of the paper than in previous sessions. There was a wide range of results between centres. The method of testing candidates' knowledge of stylesheets and unordered lists caused some candidates a problem and suggests that some candidates are almost rote learning sets of skills to pass the practical examinations, rather than having the underlying knowledge and understanding to underpin these skills and allow them to be applied in any context.

For a significant number of candidates the website authoring section of the paper was their strongest element, a continuation of the results found in recent sessions. This paper gave a good spread of marks. Candidate errors were spread evenly over the sections of the paper. As with previous year's papers there were a significant number of typographical errors; many of these could have been avoided with more careful proofreading and correction.

A very small number of candidates failed to print their name, Centre number and candidate number on every document submitted for assessment, in this session. Without clear printed evidence of the author of the work Examiners are unable to award any marks for these pages. It is not acceptable for candidates to hand annotate their printouts with their name as there is insufficient evidence that they are the originators of the work and have not simply collected the work of another candidate from the printer, and annotating this with their name.

A small number of candidates (fewer than in previous sessions) omitted one or more of the pages from the required printouts. In general candidates seemed better prepared and the vast majority who submitted Some candidates submitted multiple printouts for some of the tasks, crossed out those printouts that were draft copies. If multiple printouts are submitted and the draft copies have not been crossed out, Examiners will only mark the first occurrence of that page.

Please note that it is **not necessary** to staple work together in the ARF. Some Examiners experienced difficulty marking some pages from some Centres, as candidates had stapled all their work together in such a way that it was very difficult to separate the sheets in order to view and mark all of the work.

Overall the paper performed very well.

Comments on specific questions

Website Authoring

Question 1

Almost all of the candidates downloaded the files successfully.

Question 2

A number of candidates did not attach the stylesheet J9STYLE1.CSS to the webpage.

Question 3

The majority of candidates replaced the text correctly, but a small number failed to set this text into style h5.

Question 4

This question required the candidates to set the table width to 100% of the displayed pixels used by browser and should allow the page to open in any browser set within hardware running at any s resolution. The majority of candidates completed this successfully, although a number of candidates set allowed their WYSIWYG package to set) the table width to a defined number of pixels.

Question 5

This question caused a significant problem for a large number of candidates. The majority of candidates set the cell padding to 2 and the table border to 2. There were a significant number of candidates who used one propriety brand of Web Editor who omitted this stage completely. This is because the software defaulted to a cellspacing of 2 and did not insert the statement in the markup. Candidates were however instructed at the end of the examination to identify and highlight this element of the markup (along with other elements) and should have edited the html code to follow this instruction. Without performing this task, the code generated by this package would not set the correct cell spacing if another vendor's web browser was used to view the webpage.

Question 6

Few candidates set the anchor correctly at the top of the webpage, despite being given text to replace. A number of candidates did not name the anchor correctly, a significant number included underscores either before or after the word TOP. A number of candidates omitted this question. There were a number of follow on errors where the link from the text 'Click Here' was not created to this anchor. Some candidates created the anchor but did not use the correct anchor name in their link. Others tried to re-run the webpage rather than using the hyperlink to reference the anchor.

Questions 7 and 8

These were generally well done by the vast majority of candidates.

Question 9

The text was frequently replaced correctly with the image, but a number of candidates failed to set the target window as specified to "_scubadive" or to point this with a hyperlink reference to the correct file, without including an absolute pathway to a drive on the local machine or network server.

Questions 10 and 11

These were generally well done by the vast majority of candidates.

Question 12

A number of candidates failed to set the target window as specified to "_scubadive" or to point this with a hyperlink reference to the correct file, without including an absolute pathway to a drive on the local machine or network server.

Question 13

A significant number of candidates from a range of centres failed to correctly print one of the required printouts. A number omitted the html printout completely.

Question 14

This was generally well done by the vast majority of candidates.

Question 15

This question elicited a mixture of candidate responses. The majority of candidates set h1 to a style, although a small number either omitted the pt from the size, or set it to "48 point". Almo candidates left aligned style h5 with accuracy. A number of candidates were unable to set style h4 black, some tried using "black", others kept the hex symbol and used the text string but most correctly set the three colour components to zero, either in hexadecimal or as RGB settings. Some candidates completed the removal of the green component of the 4 styles correctly, one common error in this question was correctly setting the green component to zero, then setting the red component to FF in hexadecimal (or 255 decimal). For the final part of the question there was no requirement for candidates to use the % values to change the green and blue components. The brighter candidates are expected to have an understanding of the hexadecimal colour components and should be able to deal with values like #80 for 50% and #40 for 25%. Although this part of the question appeared to be more taxing for candidates it did provide more differentiation between the candidates expecting to reach A* and the other candidates.

Question 16

This was generally well done by the vast majority of candidates.

Question 17

A number of candidates did not attach the stylesheet J9STYLE2.CSS to the webpage.

Question 18

A number of candidates from a range of centres failed to correctly print one of the required printouts. A number omitted the html printout completely.

Question 19

A number of candidates did not attach the stylesheet J9STYLE2.CSS to the webpage.

Questions 20 and 21

These were generally well done by the vast majority of candidates, although a few candidates failed to set the styles as specified.

Question 22

The majority of candidates set the styles h4 and h5 correctly. A significant number set the lists correctly but failed to set both lists as unordered lists using the <ul> and tags. A significant number of candidates included the use of line breaks within the list items, although this was not penalised

Question 23

This was generally well done by the vast majority of candidates.

Question 24

This was generally well done by many of candidates.

Question 25

This was generally well done by many of candidates, although a number of candidates did set the hyperlink reference for J9DIVE.HTM but included an absolute pathway to a drive on the local machine or network server.

Presentation Authoring

Question 26

This was generally well done by the vast majority of candidates.

Question 27

A significant number of candidates omitted to print evidence of the pale blue background for the r the master slide, it was impossible to tell whether this was omitted from the slide or not printed due to p in 'pure black and white'; centres are advised to instruct their candidates to print in colour or greyscale ensure that such evidence is included . A number of candidates did not create the lines on the master slide Many appeared to redraw or copy and paste the lines from one slide to another, leading to inconsistent layout. Some candidates did not set all of the lines to 4 points.

Questions 28

A number of candidates included a slide number but did not place it as specified in the question paper. The most common misplacement was leaving the page numbering in the default position set by their package.

Question 29

This question was well done by the majority of candidates, although several candidates failed to place the image so that it did not overlap either the horizontal or vertical lines.

Question 30

Most candidates achieved this step, although a number ignored the instruction to centre align this text in the white area. Many candidates left the default settings from their Presentation Authoring package which did not meet the alignment criteria for this question.

Question 31

This text was often entered accurately but frequently discovered to have been placed inconsistently between slides.

Question 32

A significant number of candidates omitted this instruction completely, and allowed their software package to dictate the font sizes and styles used throughout the presentation.

Questions 33 and 34

The text was generally added correctly to this slide, but the failure to adhere to the style instructions in step 32 meant that a number of marks were lost on this question, particularly relating to font size and text alignment.

Question 35

The presenter notes were added accurately by many of the candidates although a significant number placed these on the slides rather than in a 'Notes' area to accompany the slides.

Questions 36 and 37

The text and bulleted list were generally added correctly to slide 2, but the failure to adhere to the style instructions in step 32 meant that a number of marks were lost on this question, particularly relating to font size and text alignment.

Question 38

A number of candidates failed to provide the evidence that they had set the bullets to appear one at a time. A small number also animated the subheading. This step caused a number of candidates to loose marks as the evidence was not presented to the Examiners. Screen shots of a bullet point appearing on the screen does not constitute this evidence, screen shots of the animation time line or showing that each bullet point is opened when the mouse button is pressed were acceptable.

Question 39

The presenter notes were added accurately by many of the candidates although a significant numbe[r]
these on the slides rather than in a 'Notes' area to accompany the slides.

Questions 40 and 41

The majority of candidates correctly created the pie chart from the given data. A small number used data
other than that supplied in the question paper and some created a bar chart rather than a pie chart. A more
significant number made typographical errors with the segment labels and/or omitted the percentage values
from the pie chart. Despite the instruction to omit the legend, this was present in the work submitted by a
significant number of candidates.

Question 42

The presenter notes were added accurately by many of the candidates although a significant number placed
these on the slides rather than in a 'Notes' area to accompany the slides.

Question 43

The majority of candidates demonstrated the slide transitions as required.

Questions 44 to 46

The majority of candidates printed all of the required elements, one or two candidates submitted multiple
copies of the same printout with no indication which were draft copies and which was the final copy.

Data Analysis

Question 47

This was performed well by almost all candidates.

Question 48

Despite clear instructions about placing the candidate's name, Centre number and candidate number in the
header a small number of candidates did not insert these details into the header, some using the footer and
others adding these to cells within the spreadsheet.

Question 49

Despite clear instructions about not using a named range a number of candidates ignored this and used a
named range within the lookup. This question was generally well answered by those candidates who did not
select a named range.

Question 50

Despite clear instructions about not using a named range a small number of candidates ignored this and
used a named range within the SUMIF. A small number of candidates omitted this question completely,
placing values in the cells and some used a SUM function referenced to all the cells in the range that met the
IF criteria. In this instance candidates also lost the replication mark as the formulae that they had inserted
were not replicable.

Question 51

The majority of candidates used correct formulae to calculate the number of hours, but many failed to then
select the integer value of this calculation. This question was not well answered by a significant number of
candidates, many only attaining one of the 2 marks available.

Question 52

This question was poorly answered by a number of candidates. A large number of candidates faile[...] the instruction in the question of using 'the values in C2 and D2'. As the question explicitly asked [...] candidate to use C2 and D2 this precluded the use of modulo arithmetic to solve this problem, requiring [...] candidates to think about the mechanics of the calculation and devise an appropriate formula rather tha[...] using pre-defined functions.

Question 53

The vast majority of candidates printed the formulae view of the spreadsheet, but a significant number did not follow the instruction to print this on a single page. Some candidates did not place their candidate details in the header of the page.

Question 54

Many candidates searched the spreadsheet and extracted only the correct page codes. Some failed to search and others produced two printouts, one for page code is HOL and another for FP. A significant number of candidates failed to highlight all the data before sorting it into the descending order of minutes. In these cases the data integrity was lost.