

# INFORMATION AND COMMUNICATION TECHNOLOGY

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Paper 0417/11

Written Paper

## General Comments

Candidates appeared to have sufficient time to record all their answers, with very few candidates failing to answer all questions. Candidates found difficulty answering the questions concerning replication of formulae, reasons for modelling, Command Line Interfaces and GUIs, the differences between verification and validation, the effects of microprocessor control on people's life styles and encryption.

A number of candidates completed their answers on parts of the paper not reserved for such a purpose, and some did not indicate that they had done so. This could have resulted in a loss of marks.

## Comments on specific questions

### Question 1

The vast majority of candidates were able to name all four input devices and so gained full marks. Part (b) was most frequently incorrect.

### Question 2

This was generally very well answered and the vast majority of candidates gained both marks for identifying the network devices. A tiny minority gave magnetic tape or printer instead of bridge.

### Question 3

A large majority of candidates were awarded full marks for this question on processing. Where candidates lost marks, it was mainly due to the first option; withdrawing money.

### Question 4

Many candidates gained full marks. A small number did not seem to know any of the correct answers. Incorrect answers were evenly spread throughout the options.

### Question 5

Virtually all candidates gained full marks on this question on identifying the uses of input devices.

### Question 6

Both parts of this question were answered quite well.

- (a) Larger display/screen was the most common correct response. Incorrect answers related to cost and storage. Lack of comparison lost some candidates marks.
- (b) The most common correct responses were that PCs are less portable and that additional hardware would be required. Answers sometimes contradicted those in (a). Candidates were often unable to access the second mark.

### Question 7

Candidates scored highly here, with most gaining full marks. The first statement was mostly likely to cause candidates problems.

### Question 8

This was very well answered with the majority of the candidates gaining full marks. Some of the weaker candidates confused the two terms.

### Question 9

This question was well answered with the vast majority of candidates gaining at least five out of the eight available marks. Where candidates lost marks, it was due to the lack of an accurate description of the meaning of PEN DOWN and PEN UP.

### Question 10

This question was very well answered with the majority of candidates gaining full marks. The most frequent error was for the first statement.

### Question 11

Overall, this question was reasonably well answered. Both parts were fairly well answered but few candidates gained full marks. More able candidates did better on part (a) whereas the weaker candidates did better on part (b).

- (a) Some candidates misunderstood this question. A minority wrote about expert systems. A few answers described CCTV systems or systems that would monitor the environment. Others gave fairly generic sense and control type answers with little application to the hospital scenario but still gained some marks. A number of candidates still think that sensors do the processing or only send data/a signal 'when a change is detected'. Some think they control the system.
- (b) A number of candidates repeated the information in the question by writing that computers do not need to take breaks. Although many had learnt that 'computers can work in extreme conditions' they did not relate this to the scenario as described in the question. Many candidates omitted a comparative element in their responses thus not stating what the advantage would be, e.g. they wrote 'computers are accurate', there were, however, some good answers, gaining marks for sensors monitoring, examples of vital signs and ADC.

### Question 12

Candidates had mixed fortunes with this question on spreadsheets. Most did very well on parts (a), (b) and (c), quite well on part (d) but not very well at all on parts (e) and (f).

- (a) Nearly all candidates gained the mark. "Selling price" was the most common incorrect response.
- (b) The vast majority of candidates gave a correct answer.
- (c) There were very few incorrect answers. A minority gave 8 as their answer.
- (d) The majority gained the mark, although a few candidates did not because they used x as the multiplication symbol rather than \*.
- (e) This was not well answered. Many answers lacked the detail required to gain both marks. Many knew repetition had been used but did not describe how this had been carried out. Most candidates neglected to actually select/highlight F2 prior to copying/replicating. There were many answers which did not mention the fill handle (or description of). Other answers gave a general description of replication. Of those that gave 'copy and paste', they did not always describe how these actions would be performed.
- (f) A significant number of candidates did not appear to understand this question. Answers were frequently very vague, e.g. 'cheaper'. Often comparisons were not made when required or the

answers were simply too vague and described only what could be done with computer models. Most common correct responses dealt with safety, cost of build and ease of change of variables. However, a large number of candidates managed to write the model would be cheaper without saying in what way.

### Question 13

Although candidates found this question difficult, most candidates were able to get at least one mark. Some candidates knew that CLI involved typing of commands and that a GUI would provide icons, menu etc. Their descriptions of a GUI were often vague. The weaker candidates simply stated that GUI was 'easier to use' or 'more user-friendly'.

### Question 14

This question was fairly well answered with part **(a)** being much better answered than **(b)**.

- (a)** Many candidates gained at least half of the marks available. However, a significant number of candidates gave data types rather than validation checks.
- (b)** Many candidates could describe how to carry out verification and some knew that this process was to ensure that data was copied/entered correctly. However, a number still think that verification is checking data is correct. Validation was not dealt with so well. Some candidates merely stated it was necessary 'to ensure data entered was valid'. Very few candidates were able to explain lucidly why both were necessary.

### Question 15

Overall, this question was fairly well answered with most candidates doing as well on part **(b)** as they did on part **(a)**.

- (a)** There were many answers which were not specific enough to gain marks. There were more correct answers to the second part of the question.
- (b)** There were a number of vague answers about Internet banking saving time and being good for disabled people; some mentioned hacking without expanding on it. Some candidates confused online banking with online shopping. Most candidates understood what was required of them but a large number of answers were over-elaborate and rather vague.

### Question 16

This question was quite well answered with most candidates making at least one good point with many getting two or more marks. Some candidates confused wikis with blogs. A sizeable number referred to 'Wikipedia' rather than wikis in general.

### Question 17

This question was not as well answered as expected, with few candidates gaining full marks though the majority were able to gain at least one mark. Many of those that mentioned fire extinguisher did not state that it should be a CO<sub>2</sub> type. It was common to see 'correct' responses given to the wrong risk.

### Question 18

This question was not well answered with many candidates struggling to make any valid points. The weaker candidates usually just gave a list of devices that contained microprocessors rather than the effects on lifestyle. Most common correct responses referred to increased leisure time, unhealthy eating, laziness, ability to leave house while chores being handled and de-skilling. A number of candidates gave generalised answers such as quicker, easier etc.

### Question 19

This question on encryption was slightly better answered, with most candidates gaining at least one mark. Brighter candidates tended to make three or four good points. Not many stated that the primary benefit would be to protect sensitive/personal/confidential data. Many candidates neglected to mention encryption and/or decryption keys and so lost an opportunity to increase their mark. However a number of candidates showed some understanding of encryption.

# INFORMATION AND COMMUNICATION TECHNOLOGY

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Paper 0417/12

Written Paper

## General Comments

Candidates appeared to have sufficient time to record all their answers, with very few candidates failing to answer all questions. The tendency of some candidates to learn answers from previous mark schemes off by heart and reproduce them for unrelated questions was less in evidence this session, however, there were still some cases noted. This leads to candidates giving strange answers which do not relate directly to the question asked. This was evident in **Question 16**, where candidates often gave answers from the point of view of the company, rather than the worker as directed by the question. This practice can cause candidates to lose many marks, as they clearly do not understand the concepts they are memorising.

A number of candidates completed their answers on parts of the paper not reserved for such a purpose, and many did not indicate that they had done so. This could have resulted in a loss of marks.

Areas of difficulty for candidates were relational databases, computer-controlled greenhouses, choice of test data, advantages and disadvantages of different magnetic media and the use of the Internet.

## Comments on specific questions

### **Question 1**

Nearly all candidates gained full marks. The most common error was to give chip instead of flash memory card.

### **Question 2**

Again, most candidates gained full marks. Some gave input devices instead of output devices.

### **Question 3**

The vast majority of candidates again gained full marks. Incorrect answers tended to identify the chip as software.

### **Question 4**

Virtually all candidates gained full marks in this question on devices. Those that did not seemed to think that a dot matrix printer would be used to output high quality photographs.

### **Question 5**

Candidates answered this question fairly well, with many being able to name three methods of preventing illegal access to computer networks. Most lost some marks for not giving an accurate description. A number of candidates mistakenly thought that encryption prevented access to a network.

### **Question 6**

Candidates answered this question very well with better candidates tending to get full marks and even weaker candidates were able to make one or two good points.

### Question 7

This question was well answered with many candidates gaining full marks. The most common errors were to reverse the FORWARD 30 and RIGHT 60 commands, to replace RIGHT 60 by RIGHT 120 or LEFT 60 and to put REPEAT/ENDREPEAT in the wrong places.

### Question 8

Overall, this question was fairly well answered. Part **(b)** was very well answered whereas part **(d)** was not well answered at all.

- (a)** Fewer than half the candidates gave the correct answer. There were a number of worryingly wrong answers such as RAM and Microsoft Access.
- (b)** The vast majority of candidates gained this mark.
- (c)** Most candidates made at least one valid point. A worrying number thought that direct data entry has no errors at all associated with it.
- (d)** This part was poorly answered. Only a minority of candidates scored well here – many answers were extremely confused and some simply described the process of borrowing a book.

### Question 9

This question proved difficult for some candidates. A number failed to answer the question as set. Many candidates simply gave a list of hardware and/or software involved in video conferencing but did not mention their uses. A number of candidates used the phrase 'face to face' instead of describing video conferencing.

### Question 10

The majority of candidates gained full marks but a significant minority confused health issues with safety issues.

### Question 11

This question was well answered for parts **(a)** and **(b)** but very few did well on part **(c)**.

- (a)** The majority of candidates gained both marks. Common incorrect answers were temperature sensor, despite the question telling candidates not to use it, and pressure sensor.
- (b)** This was well answered with very few candidates failing to gain at least one mark.
- (c)** This part of the question was not well answered. Many candidates failed to make it clear that the computer was in control and was instigating the switching on and off of appliances. A number of candidates appeared to think that it is the sensor triggering the action "When the sensor detects that the temperature...".

### Question 12

Overall, this question was not as well answered as expected. Most candidates did very well on part **(a)** but quite poorly on part **(b)**.

- (a)** This part was well answered with very few wrong answers, though a number omitted the word 'reader' despite the question asking for devices.
- (b)** This was not very well answered with very few candidates showing an understanding of the topic. There were some clearly expressed and fully correct answers but weaker candidates had not remembered the correct terminology and wrote about 'pre-set level' rather than re-order number, for example. Answers which did not gain marks often concentrated on what happens when a person goes shopping rather than attempting to answer the question. A significant number of candidates did not attempt this part.

### Question 13

Overall, this was a fairly well answered question apart from part (c).

- (a) The majority of candidates gained full marks. There were, however, a few incorrect answers with some candidates giving methods of implementation or stages in the systems life cycle.
- (b) This was very well answered with the vast majority of candidates gaining at least four marks.
- (c) This was not answered very well other than by the best candidates. A significant number of candidates did not attempt this part. Many did not gain marks on this part due to not giving any examples of data items and instead simply referring to types of test data such as normal/abnormal/extreme.

### Question 14

This question was well answered in part (a) but less well in part (b).

- (a) The vast majority of candidates gained at least one mark on this part on backups. This was usually for the point that it is a copy of files. Some struggled to elaborate further.
- (b) There were a large number of responses where candidates wrote about discs and tapes without comparing them. A small number confused “backup” with “backing store” and wrote about how tape systems are updated and the ease of editing data.

### Question 15

This question differentiated well with better candidates clearly understanding many of the differences. There seemed to be a generally sound understanding by these candidates of pharming but not such a great understanding of phishing, other than that it occurs with the sending of an email. Weaker candidates did not seem to understand either of the two terms.

### Question 16

This was not well answered. Many answers were about advantages/disadvantages to the company, rather than the workers and thus were awarded few marks. Better candidates who had read the question were able to score well.

### Question 17

Many candidates gained at least two marks for this question. However, the standard of answers was not very high. Some candidates over elaborated on one point instead of giving several points. There were many vague answers which did not answer the question, with some answers referring to pharming and hacking.

# INFORMATION AND COMMUNICATION TECHNOLOGY

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Paper 0417/13

Written Paper

## General Comments

Candidates appeared to have sufficient time to record all their answers with very few candidates failing to answer all questions. The tendency of some candidates to learn answers from previous mark schemes off by heart appeared to be less in evidence. Topics which seemed to present difficulties for candidates were hacking, and to a larger extent, the means to prevent it, the reliability of information found on the internet, electronic funds transfer and batch and online processing. Candidates found difficulties, although to a lesser extent with, internet shopping and phishing. Most candidates found the rest of the paper fairly straightforward. Some candidates, however, did not read the question paper carefully and ignored instructions, particularly in **Question 10**.

## Comments on specific questions

### **Question 1**

The vast majority of candidates gained full marks but a tiny minority failed to identify the dot matrix printer correctly.

### **Question 2**

The large majority gained full marks. Some of the weaker candidates identified the storage devices as being network devices.

### **Question 3**

Not all candidates gained full marks. Many gained just four marks with incorrect answers tending to be fairly evenly spread among the options. However, a worrying number thought that CDs store more information than a magnetic tape.

### **Question 4**

The majority of candidates did very well but a disappointing number thought that weighing scales were used to input text rather than an Optical Character Reader.

### **Question 5**

Few candidates gained full marks, with many not realising that magnetic discs are used in online applications.

### **Question 6**

Candidates did very well on this question on the whole. However, a surprising number of weaker candidates did not attempt the question. The vast majority of strong candidates gained full marks. A number of candidates were unable to give the correct REPEAT parameter.



### Question 7

Candidates did very well on this question but often answered part **(b)** better than part **(a)**.

- (a)** The majority of candidates gained two or more marks. A number of candidates ticked that meetings can be arranged at any time of day.
- (b)** The vast majority of candidates gained full marks.

### Question 8

This question was very well answered, though a small number of candidates confused health and safety issues.

### Question 9

This question was not as well answered as expected, though candidates did slightly better on part **(a)** compared to part **(b)**.

- (a)** Many candidates were able to describe the term hacking but struggled with regards to the misuse aspect.
- (b)** Most candidates had difficulty with this question. A number were able to describe firewalls or authentication techniques as answers but failed to go into sufficient detail to gain both marks. Some candidates thought that encryption would prevent access to a network.

### Question 10

This question was quite well answered, although candidates found part **(a)** more difficult than part **(b)**.

- (a)** The great majority of candidates gained at least one mark but a number ignored the question and gave reasons related to travel. Many answers lacked detail and some one-word answers were seen.
- (b)** Candidates did well on this part but, again, some did not follow the instructions of the question and gave security-related answers.

### Question 11

Candidates did not do as well as expected on this question on the reliability of online information. Most candidates gained at least one mark but only the stronger candidates gained more than two. Candidates often elaborated on one or two points instead of trying to make five points.

### Question 12

A sizeable minority of candidates did not attempt this question on implementation methods. Many candidates gained at least half marks for naming the methods but a number failed to describe the methods accurately. Some candidates seemed unaware of the names of the methods.

### Question 13

Candidates did not do as well as expected on this question on supermarkets, particularly part **(c)**.

- (a)** The majority of candidates gave two correct answers, with many giving all three. A minority of candidates did not read the question carefully enough and wrote down input devices.
- (b)** This was not as well answered as expected. A number of candidates did not attempt it. Weaker candidates gave bar code reader as an answer. Some gave EFTPOS machine as an input device.
- (c)** Again, a number of candidates did not attempt this question. Despite this, many did make two points but only the stronger candidates went on to give more. A number of candidates seemed to lack detailed knowledge of this topic, particularly regarding the aspect of cards being rejected.

#### Question 14

Many candidates were awarded at least half marks in this question on phishing. A significant number of candidates did not attempt this question. Of those that did, the majority made at least two good points. Some did not understand the topic and a further number confused it with pharming.

#### Question 15

This was very well answered with the vast majority of candidates gaining over half marks. Parts **(a)** and **(c)** were very well answered, with part **(b)** still attracting some marks.

- (a)** The vast majority of candidates gained at least five marks for their database field names, with a substantial number gaining six or more marks.
- (b)** This was not as well answered as the other parts. A number of candidates gave validation checks rather than test data, and some just repeated the data types they had already given in part **(a)**.
- (c)** This was very well answered though 'hardware and software requirements' was a popular wrong answer.

#### Question 16

This was not well answered. Many candidates seemed to be able to define just one of the processing types and many failed to give examples as required by the question.

# INFORMATION AND COMMUNICATION TECHNOLOGY

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Paper 0417/02  
Practical Test A

## Key Messages:

- Candidates are advised to read all questions carefully and check that they have followed the requirements of each step.
- Candidates are advised to take extra care when typing or inputting data.
- Candidates should print the work they have completed, if they are aware that they may run out of time.

## General

Overall the paper did not seem to be more difficult than in previous years. The instructions given were clear and, if candidates read the instructions carefully and produced what was asked for, they scored high marks. Overall the paper tested the practical skills of the candidates and enabled those with excellent skills to show their ability whilst allowing the weaker candidates to score some marks.

## Printed evidence

A significant minority of candidates, after recording on the question paper the completion of many document tasks or the collection of evidence in a document, did not present printed evidence for these tasks. A missing document could deprive the candidate of about thirty marks. A missing or incomplete evidence document would reduce achievable marks by even more. There were no explanations in the assessment record folders of why such evidence was not produced. It may be that the print instruction was not reached after becoming stuck on database tasks, or it might be the result of running out of time for printing or some other reasons. It would be a good idea in preparation of candidates to remind them to print materials as the end of the examination approaches even if some tasks are incomplete.

Most candidates made sure that their personal details appeared printed on every page submitted since they were aware that otherwise work cannot be marked. For some candidates, the second page of the first report was missing, and a possible explanation might be that their name only appeared on the first sheet of the report and the second sheet was not returned to them from the printer. As the instruction was to put the name at the top of the report without specifying that it should be in a page heading, Examiners would have marked the follow on page of the report. In a similar way, Examiners would mark a first page of a two page report if the name was specified to appear below the report. Supervisors who only return named sheets to candidates may need to be aware of this.

## The evidence document

### Step 1

Most candidates created an evidence document in which to save relevant work and present a printed copy at the end of the examination.

### **Adding a contact and managing files**

#### Step 2

The majority of candidates correctly stored and displayed the contact details, although capital letters on name or job title were sometimes incorrect.

#### Step 3

All files were provided and should have been accessible to candidates.

### **Document editing**

#### **Document layout**

#### Steps 4 to 8

Candidates were asked to provide a screenshot for paper size and margin settings and this was a great help in ensuring that these were set correctly.

#### Step 9

Header and footer items were usually well done, but not always aligned correctly to the margins. The file name was to be inserted in the footer details with the full path displayed and aligned to the right margin. Not all candidates displayed the file path.

#### Steps 10 to 16

Some candidates seem unable to distinguish between serif and sans-serif fonts for the title and subtitle and body text.

#### Steps 17 and 18

Body text specifications were usually met and applied. Some candidates did not apply a serif font to this text and others displayed the text in double spacing, left aligned or even centred. Change of page layout after the subtitle was usually done as specified to create two columns with a 1 cm gap.

#### **Editing the text**

#### Steps 19 to 23

There were a lot of subheadings identified in the body text and many candidates failed to locate all and format as specified. The specification was to match the subhead settings i.e. left aligned, sans-serif font in 18 points.

Bullets were usually applied to the correct text, although sometimes to additional text too.

The new text file to be inserted was generally located and placed as specified, but relatively rarely matched to the body text specifications. Emphasis was almost always correctly applied to the specified text.

Two text replacements had to be identified and replaced using the given text. This was quite often not achieved (either by failing to identify both instances of DIY or through incorrect spelling or capitalisation of the replacement text).

#### Steps 24 to 26

The supplied image was usually inserted in the specified place in the text with text wrapped, although it sometimes extended into the bottom page margin and was sometimes not resized to fill the column with aspect ratio maintained.

## Step 27

The document was to be saved with a new file name and this new name should have appeared updated in the footer. Some candidates' work displayed the original file name.

### **Database structure and reports**

#### Steps 28 and 29

Almost all provided the file structure screenshot with correct field names and types. The currency format was not always set to Euros, and was sometimes defined as integer format. This led to incorrect display of values in the reports.

#### Steps 30 to 32

The three new records were usually added without errors.

#### Steps 33 and 34

The report was generally constructed well in terms of selection of records and sorting them into order. The layout was tricky in that there was a field with a lot of data and getting this all displayed required some effort. Some solved the problem by reducing the font size and others forced the display onto two lines in designing the report. A small minority of candidates chose to display only the three fields specified for selection and sorting of the records instead of all the fields.

#### Steps 35 and 36

The second report, when present, was frequently executed with full accuracy, gaining full marks. The display of the calculated fields was a problem for some candidates.

### **Integration and document finalisation**

#### Steps 37 to 40

When present, this extract was often well done, finding the correct two records and displaying only the specified fields. The new text was usually added correctly, but was not always formatted as body text. The extract was then usually placed correctly into the document and displayed with gridlines showing, but the text was not always matched to the body text.

#### Steps 41 to 43

Paragraph spacing between paragraphs and after the headings was checked for consistency. There were two replacements of text to be made and these had to match the spelling and capitalisation of the given text.

A significant minority of candidates, after recording on the question paper that they had worked on the document, did not present printed evidence for this document. It may be that the print instruction was not reached after becoming stuck on database tasks, or it might be the result of running out of time for printing or some other reasons. Candidates should be aware that the document will be printed at some stage and should prepare to send the document to print even if it is not complete.

### **Email**

#### Steps 44 to 47

The email message was to go to two recipients of equal importance (i.e. both on the To: line). The message was often accurately presented in the evidence document. The common errors seen were to:

- send a CC: or BCC: copy to the second recipient
- attach a different file such as a database file
- leave the message text incomplete without the final punctuation mark.

## Presentation

### Steps 48 to 53

The presentation was quite straightforward for many candidates who often achieved full marks for this product. Some did not set up a master slide or did not place all items on the master. Fairly frequently some master items appeared on the first slide which was not meant to display them. This was a new task, so unfamiliar to some candidates.

## The evidence document

### Steps 52 and 53

Screenshots in the evidence document should be of a size that make it easy to see what candidates had done. However, the quality of printing from some Centres was very poor and in some cases unreadable. If text in screenshots was very small, or indistinct, and the data was not displayed clearly enough to be read with the naked eye, then it could not be marked.

## Administration issues.

Fewer Centres persist in stapling prints in the ARF – the message is being heeded that this is not helpful, especially the use of multiple or heavy duty staples. Marking is then difficult as all printed evidence may not be visible without having to remove all staples. Other Centres use hole-punches and secure scripts with string/treasury tags. The holes occasionally go through and obscure text.

# INFORMATION AND COMMUNICATION TECHNOLOGY

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Paper 0417/03  
Practical Test B

## Key Messages

There were slightly fewer candidates achieving excellent results on this paper than in previous sessions, the paper giving a good spread of marks. In many of the previous sessions a significant number of candidates' strongest element was the website authoring section of the paper; in contrast the spreadsheet section of the paper gave many candidates their highest percentage of marks. The most significant area of weakness from many candidates was incorrect syntax within their cascading stylesheets.

Many candidates appeared extremely well prepared for this examination and showed sound knowledge, skills and understanding. There is evidence that some candidates are rote-learning sets of skills to pass the practical examinations, rather than having the underpinning knowledge and understanding which allows these skills to be applied to any context. This may have been the reason that fewer candidates achieved excellent results on the website and stylesheet questions. There were a significant number of typographical and syntactic 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. Some candidates did not produce screen shot evidence to show their web page worked in a web browser.

Centres **should not** staple the work or tie it together with string. Occasionally, scripts were tied in the middle of the pages making them difficult to open/turnover for marking. Some had punched holes through the evidence for marking. Work should be submitted in the ARF along with the question paper; both the ARF and question paper should have hand written on it the candidate's name, Centre number and candidate number. The date that the candidate sat the examination should also be recorded on the question paper.

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. A number of candidates omitted one or more of the pages from the required printouts. 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.

The majority of candidates presented evidence of many of their printouts with fonts so small it was difficult for Examiners to read. Candidates should check each print to ensure it is large enough to be read with the naked eye, and if necessary restyle/reprint accordingly. Where Examiners are unable to read the materials presented they cannot award marks. Similarly, some candidates did not attain marks as a result of presenting screen shots where they had cropped too much of the original image losing some of the evidence necessary to award marks.

## Comments on specific questions

### Question 1

The majority of the candidates created the evidence document successfully.

### Question 2

The majority of the candidates created the folder as specified.

## Data Analysis

### Question 3

The majority of the candidates completed this step successfully.

### Question 4

The majority of the candidates completed this step well although there were a number of transpositions between left and right and some inaccuracies in the data entry for "Last revision on". Some failed to key this with the case as shown on the exam paper. A small number of candidates entered the text "Last edited by" which was text from a previous examination question. The majority of candidates added the correct automated date but fewer candidates included the automated time.

### Question 5

The majority of candidates included all 3 elements in the footer, although there were a significant number who did not left align all three elements, placing one element left, one centre and one right aligned in the footer, as seen in some previous papers.

### Question 6

The majority of the candidates completed this step successfully.

### Question 7

The majority of the candidates completed this step successfully.

### Question 8

The majority of the candidates completed much of this step successfully. There were a significant number of candidates who set the formatting of this cell as a black 18 point sans-serif font rather than a white font. Some candidates used a serif font rather than a sans-serif font.

### Question 9

Many candidates completed this step successfully, but a significant number of candidates ignored the instruction to "Display all currency values in Euros with 2 decimal places" and set currency values into their local currency, dollars or pounds sterling.

### Question 10

The majority of the candidates completed this step successfully. A small number of candidates printed either a larger range of cells or set the page orientation to landscape. Some did not fit the printout to a single page.

### Question 11

Almost all of the candidates created a named range, the majority from the correct range of cells. There were a significant number of candidates who had case errors in the name given to this range, some candidates called it **Job Codes** or **A**.

### Question 12

Many candidates completed this step successfully, using either LOOKUP or VLOOKUP functions but there were also a significant number of different incorrect methods used. Despite a clear instruction to use the named range code, many candidates used an absolute range of cells even though they had shown screen shot evidence of correctly creating the named range. Some candidates used a range rather than a single cell for the lookup cell reference. Almost all candidates replicated this function as specified.

### Question 13

Some candidates completed this step successfully but there were also a significant number of data entry errors. Many candidates ignored the initial information that "The *Hours worked* by all employees were the



same as their *Contract hours* except..." and chose to enter no data for any employee who had worked their normal contract hours.

#### Question 14

The majority of the candidates completed this correctly, although several candidates included a reference to the blank cell below the data within their range.

#### Question 15

Many candidates completed this step successfully, using either LOOKUP or VLOOKUP functions. Despite a clear instruction to use both absolute and relative cell references a small number used a second named range (often called Rate of Pay) but showed no evidence of their definition of this range. A number of candidates replicated the contents of step 12 accurately yet did not appear to attempt replicating this or subsequent functions and formulae.

#### Question 16

The vast majority of the candidates completed this step successfully. Some candidates multiplied by the *Contract hours* rather than the *Hours worked*.

#### Question 17

Many candidates completed this step successfully. Of those who did not, the most common omission was the failure to test to see if the employee had worked overtime hours; if not to set the overtime pay to 0 rather than (where this was omitted and employees had not worked their contracted hours) attaining negative values.

#### Question 18

The vast majority of the candidates completed this step successfully.

#### Question 19

The majority of the candidates completed this correctly, although several candidates appeared to omit this step, in these cases, evidence of replication was frequently present in step 12 but not shown here.

#### Question 20

The majority of the candidates completed this correctly, although several candidates included a reference to the blank cell below the data within their range.

#### Question 21

Although many candidates applied appropriate formatting to all cells, there were a number of omissions, where candidates had not recognised the final 4 columns should contain currency values. A significant number of candidates ignored the instruction to "Display all currency values in Euros with 2 decimal places" and set currency values into their local currency, dollars or pounds sterling.

#### Question 22

The majority of the candidates completed this correctly, although some candidates did not produce a formulae printout. Of those candidates producing a formulae printout; not all displayed only the required rows and almost all had set the page to landscape orientation. Few displayed the row and columns as specified and a number of candidates produced printouts which did not display all the cell contents so that Examiners could credit the candidates with marks for all of their formulae.

#### Question 23

The majority of the candidates completed this correctly, although a small number of candidates did not resize the columns so that all labels and values were fully visible.

#### Question 24

A significant number of candidates produced printouts without the search criteria 'contains' the word instructor, therefore producing fewer records than the required list, most extracted those records where the employee had worked overtime.

#### **Question 25**

The majority of the candidates completed this step successfully although some hid rows 1-19 instead of 3-19.

#### **Question 26**

The majority of the candidates completed this step successfully.

#### **Question 27**

A number of candidates did not attempt this question, although most who did completed this correctly. A very small number extracted these rows but did not display all of the cell contents for these rows.

### **Website Authoring**

#### **Question 28**

Almost all of the candidates downloaded the required images and stored them in the required folder.

#### **Question 29**

This was a different style of question to those found in previous sessions which required the candidates to add a style to a current stylesheet. The majority of candidates successfully opened the stylesheet and achieved some marks but few were careful in their checking of the .css syntax. It was clear that only a few candidates had checked that the styles worked in their web page. One significant error was where candidates had created a class .h1 to be used with a style rather than defined the style h1. A number of candidates attempted to add embedded html tags into their cascading stylesheet.

#### **Question 30**

The majority of the candidates saved the stylesheet successfully, although some candidates ignored the instruction to rename the file to include their candidate number or did not use the format given. Some candidates did not save the file with the .css file extension.

#### **Question 31**

Almost all candidates added this screen shot to their evidence document but in many cases the font size of the styles was so small it was very difficult to read. Where Examiners are unable to read the work submitted they are unable to credit the candidate with any marks. Despite an instruction to: "Make sure that the filename is clearly visible", a number of candidates did not do this.

#### **Question 32**

The majority of the candidates completed this step successfully.

#### **Question 33**

This step proved difficult for a number of candidates, many created the structure without correctly counting the rows and columns, therefore the numbers selected for the 'rowspan' and 'colspan' attributes did not meet the requirements of the question.

#### **Question 34**

The majority of the candidates completed this step successfully using either an embedded css style attribute (e.g. `<table style="width:800px;height:600px;">`) or width and height attributes within the html table tag. As width and height attributes are now being deprecated within html, embedded css styles will be needed for future sessions.

### Question 35

The majority of the candidates completed this step successfully using either an embedded css style attribute or width attributes within the td tag.

### Questions 36 to 39

These questions required screen shot evidence of the web page displayed in a web browser to demonstrate that the images were located in the appropriate location and would therefore work when uploaded to a web server. The majority of candidates produced this evidence and therefore achieved the marks for placement of the correct images in the correct cells of the table.

### Question 40

The majority of the candidates completed this step successfully. The most common errors of those seen were typographical or case errors and omission of one of the numbers. Almost all candidates who submitted this work set this to style h1.

### Question 41

The majority of the candidates completed this step successfully. A small number of candidates erroneously embedded the css within the head section of the page rather than attaching an external stylesheet. Other candidates placed the attached stylesheet outside the head section. A small number of candidates included an absolute file path to this stylesheet which would not work correctly when uploaded to a web server.

### Question 42

This question was performed well by most of the candidates who attempted it. There were some candidates who resized the image widths and left the original heights therefore changing the aspect ratio and distorting the image. Several candidates did not show evidence of saving this file with the new filename as specified.

### Question 43

This question was performed well by many of the candidates who attempted it. There were some candidates who erroneously resized the image widths and heights rather than reducing image resolution. Several candidates did not show evidence of saving this file with the new filename as specified.

### Question 44

The majority of the candidates completed this step successfully.

### Question 45

This element required screen shot evidence of the web page displayed in a web browser to demonstrate that the image was located in an appropriate location and would therefore work when uploaded to a web server. The majority of candidates produced this evidence and therefore achieved the mark for placement of the correct image in the correct cell of the table.

### Question 46

The majority of candidates used the Contact Us button and image to create the hyperlinks and therefore attained the first mark. A few did not create the hyperlink on both the button and the image. The majority of candidates correctly included the href="mailto: command with the correct email address. Many candidates attempted the subject line with the correct leading "?" but the vast majority did not include accurate typing of the subject line (including the case used and ellipses). Some errors made by candidates would have been avoided if candidates had tried the hyperlink to check that it opened their email software and set all elements as specified in the question paper.

### Question 47

A small number of candidates from a range of Centres did not correctly produce the browser view as a screen shot. The instruction to resize the browser window to fill the entire screen was so that Examiners

could read the text and check that images and styles were as specified in the question paper. The screen shot evidence produced by candidates must show Examiners that it is taken from the browser, a number of candidates had cropped their screen shots so that only the page contents was present and this could not therefore be verified. Some did not display the webpage in a browser but produced a screen shot from the html editing software. A number of candidates omitted the html printout completely.

#### **Question 48**

Almost all candidates printed the evidence document.