INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/11
Written Paper

Key Messages

Candidates did well on questions that required simple and straightforward answers, but other questions required more explanation or discussion.

Candidates were expected to make comparisons when discussing advantages or disadvantages.

Candidates need to spend time reading a question thoroughly so that they are clear on what they were required to do.

General Comments

One concern was that there were more brand names used in answers than in previous years. It is clearly stated on the front page of the exam paper 'No marks will be awarded for using brand names of software packages or hardware.'

Some questions which required choosing from a list such as **Questions 1**, **3** and **4** were answered very well. This approach to answering other questions may be advisable where candidates could list their thoughts in rough before choosing those that would be appropriate to the phrasing of the question.

There still appeared to be a degree of rote-learned answers from previous years' mark schemes. Although questions might cover a similar topic, the questions themselves might change considerably. This was particularly the case with **Question 13** where some candidates answered for modelling rather than simulating used for specifically training air pilots.

In this paper, candidates are required to show a level of understanding as well as knowledge. As has been highlighted in previous reports, this cannot be achieved by simply repeating mark points from previous mark schemes.

Candidates must read questions carefully before attempting to answer. This was particularly the case with **Question 6** where some candidates omitted the PENDOWN instruction despite the stem clearly stating that the pen was up. **Question 9** specifically said 'other than by using virus protection software' yet many still mentioned variations of this in their answers.

Comments on Specific Questions

Question 1

The majority of candidates gained full marks. The most common incorrect answer was hard disc drive sometimes given for A.

Question 2

This was generally very well answered. Any incorrect answers tended to use the terms from **Question 1**. A small minority of candidates used the terms LAN and WAN as answers to this question.

Question 3

The vast majority of candidates were awarded full marks. There did not seem to be a pattern to the incorrect answers with these being evenly distributed amongst the other options.

Question 4

Nearly all candidates achieved full marks. A very small number of candidates thought a web page authoring program was hardware.

Question 5

Candidates found this a difficult question to answer. There appeared to be a tendency for a number of candidates to give brand names for their answers, thereby gaining no marks. Many candidates, despite their answers to **Question 4**, seemed to confuse hardware and software. The names of hardware, such as motors and heaters, were common responses.

Question 6

This question was quite well answered, with the majority of candidates gaining at least 3 marks. PENDOWN was often omitted and some candidates thought that RIGHT 135 was the same as LEFT 45.

Question 7

This question was well answered by most candidates with parts **(a)**, **(b)** and **(d)** being slightly better answered than **(c)**.

(a)   Candidates did well on this question with the vast majority of candidates gaining at least half the marks available. The most commonly occurring incorrect responses were for parts **(ii)** and **(iv)**

(b)   This was well answered in the main but there was a minority of candidates who gave **Make** as their answer despite there being more than one 'Yotoya'.

(c)   This part was not as well answered as the others. More candidates gave a correct answer for their choice of key field but some did not know the reason why they had chosen it.

(d)   Most candidates gave two correct answers.

Question 8

This was reasonably well answered though most candidates produced weaker responses to parts **(b)** and **(e)** than the other parts.

(a)   Candidates did quite well on this question with the majority of candidates giving at least one accurate response. A number of candidates gave answers such as moisture and humidity but others made up their sensors.

(b)   On the whole, this question was not well answered. Many candidates tended to just re-word the question. Some gave answers suggesting that it was not control because sensors are being used and others referred to the data being analogue which caused this not to be control.

(c), (d) A large majority gained the mark for these questions although some candidates gave brand names and others gave examples of hardware.

(e)   Candidates still find this type of question difficult. Where marks were awarded they were usually gained for mention of data being fed back and the use of ADC. Location of sensors was often vague and mention of graphs did not relate to the automatic plotting. Many candidates mistakenly believed this was a control question as shown by their answers.

Question 9

A number of candidates mentioned not opening emails from unknown sources or gave similar responses to gain a mark. Generally, the question was not answered well, with less than half the candidates gaining a mark and few gaining both marks. Despite the question stating 'other than by using virus protection software', there were many references to anti-virus and scanning of external media.

Question 10

This question was quite well answered with the majority of candidates gaining at least half marks. Each part of the question seemed to be equally well answered.

(a) (i) Most candidates were able to define a LAN but a minority used the word Access instead of Area. Many more able candidates were able to go on to gain the second mark.

(ii) Most candidates were able to define a WAN but a minority used the word 'wireless' instead of 'wide'. Many more able candidates were able to go on to gain the second mark. A common mistake was for candidates to just repeat themselves when attempting to expand their answers e.g. 'A Wide Area Network is a network which covers a wide area'.

(b) Most candidates gave the correct answer.

Question 11

This question was not well answered. Most candidates gained at least half marks for part **(b)** but seemed to struggle with part **(a)**

(a) Many candidates did not read the question properly. The question required descriptions, yet many gave one word answers. This was a good example of candidates losing marks because of a weak exam technique. Often the features were correctly given but without a description to follow.

(b) (i) There were many correct answers with candidates gaining at least one mark. A minority of candidates referred to the action of saving data rather than making a backup.

(ii) Many correct answers were given but slightly fewer than in part **(ii)**. A number of candidates thought a backup was purely to transfer data from one computer to another.

Question 12

Candidates had mixed fortunes with this question. Most did very well on part **(a)**, quite well on part **(b)** but not very well at all on part **(c)**

(a) Most candidates gained all three marks with very few weak answers. A minority of candidates did not appear to read the question carefully and just gave examples of the contents of each field.

(b) This was well answered in the main but there was a minority of candidates who appeared to have little knowledge of verification and gave names of validation checks or just made a guess.

(c) This part was not well answered. This question required an understanding of validation checks and choosing the one that would have prevented the specific error. A number of candidates ignored the question and wrote down the same validation check for more than one error prevention.

Question 13

This question was not particularly well answered with many candidates failing to gain any marks. There was still a tendency to give answers which ignored the scenario described in the question. Many gave answers which applied to modelling in general rather than simulation in particular or gave one word answers. Examples of these types of response were, wasteful on materials, safer and cheaper.

Question 14

This question was well answered with many candidates gaining at least two marks. Some candidates failed to make a comparison and gave three statements about using a computer to collect the data.

Question 15

Candidates did not do as well as expected. Some candidates described how expert system functions and others substituted 'engineer' for expert which suggested that the engineer would be collecting data from themselves. Many described all aspects of the systems life cycle. A lot of candidates failed to read the question carefully and described an expert system instead of how one could be created. One in ten candidates did not even attempt this question.

Question 16

This question was quite well answered with the exception of part **(c)**

(a)   This question was reasonably well answered with many candidates gaining at least one mark. Correct answers were usually about paying in or withdrawing cash. Some weak answers were a result of candidates answering the question without displaying knowledge of online banking and transactions. A number of candidates gave general activities rather than banking transactions, for example, 'it does not allow you to purchase goods or to log in as another customer if you do not know their login details'.

(b)   Nearly all candidates gained full marks.

(c)   This was not very well answered. Many did not give disadvantages to the bank; they tended to answer form the point of view of the customer rather than the bank. The majority talked about the drawbacks to the customer.

(d)   This part was fairly well answered. Most candidates seemed to understand what encryption is but had difficulty when expanding their answers. Some candidates did not seem to understand the topic.

Question 17

This question was not well answered with few candidates gaining many marks, but the majority gaining one or fewer marks. Some candidates wrote about an online form rather than a paper-based one.

A number of candidates did not seem to understand what the word 'features' or term 'well-designed' meant. A large number of candidates only listed potential data fields – title, author, ISBN, etc. Some even described features of online forms despite the question clearly stating 'paper-based'. Some candidates believed that a paper form has forward and backward buttons.

Question 18

This question was not very well answered. A few candidates gained full marks but the majority gained one or fewer marks. Many candidates wrote about the features of the different methods of communication but few compared or discussed the advantages and/or disadvantages. The question required candidates to compare the methods in order to provide advantages and/or disadvantages.

Question 19

This question was better answered than the previous question. The vast majority of candidates were able to make at least one valid point with the most able candidates making three or more good points.

A substantial number of candidates thought that internet research would result in teachers becoming lazy and playing games

Question 20

This question produced a full range of responses. Most correct responses referred to more people being reached and that those without access to the internet would not be able to see the web advert. Many candidates found it difficult to score any marks, with the norm being just one or two marks awarded for one disadvantage and one disadvantage. A number of candidates were unable to make the comparison which cost them marks.

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/12
Written Paper

Key Messages

Candidates did well on questions that required simple and straightforward answers, but other questions required more explanation or discussion.

Candidates were expected to make comparisons when discussing advantages or disadvantages.

Candidates need to spend time reading a question thoroughly so that they are clear on what they were required to do.

General Comments

One concern was that there were more brand names used in answers than in previous years. It is clearly stated on the front page of the exam paper 'No marks will be awarded for using brand names of software packages or hardware.' Instances of this could be found particularly in **Questions 4** and **9c**.

Some questions which required choosing from a list such as **Questions 1**, **3**, **5** and **13** were answered very well. This approach to answering other questions may be advisable where candidates could list their thoughts in rough before choosing those that would be appropriate.

There still appeared to be a degree of rote-learned answers from previous years' mark schemes. Although questions might cover a similar topic, the questions themselves might change considerably. For example, many candidates seemed to have learnt the names of the methods of implementation but did not understand what they had learnt so they could not give an advantage of the method.

In this paper, candidates are required to show a level of understanding as well as knowledge. As has been highlighted in previous reports, this cannot be achieved by simply repeating mark points from previous mark schemes.

Comments on Specific Questions

Question 1

The majority of candidates gained full marks. Candidates who did not score full marks, did better on part **(a)** than on part **(b)**.

(a)   Most candidates gained both marks.

(b)   Most candidates gained full marks with only the lower ability candidates scoring one mark.

Question 2

This was generally well answered, with the majority of candidates gaining at least one mark. Any incorrect answers tended to use the terms from **Question 1**. A small number of candidates used the terms magnetic tape and MICR to answer this question.

Question 3

The majority of candidates gained one or two marks with a few candidates being awarded 0 marks. A minority of candidates had very little knowledge of dot matrix printers.

Question 4

The first two statements, atmospheric pressure and greenhouse, attracted many incorrect responses; many referred to sensors rather than software. However, many candidates did gain marks for the other three statements. A large number of candidates did not follow the exam paper rubric and used brand names rather than generic software types.

Question 5

Many candidates were awarded all five marks with most candidates scoring three or more marks. A number of candidates seemed reluctant to put 4 out of the 5 ticks in one column and thought that the answers would be balanced between TRUE and FALSE. Candidates should answer the question in front of them rather than thinking that there is some pattern to the tick marks.

Question 6

This question was fairly well answered with the majority of candidates gaining at the marks. Candidates answered part **(b)** better than part **(a)** which is perhaps not surprising given that this is the interface they will be most used to.

(a)   Candidates did well on this question with the majority of candidates giving the correct answer. A large number of weaker candidates did not attempt the question or repeated what they saw in the diagram.

(b)   This was generally well answered but there was a minority of candidates who did not attempt this question or just copied out the directory path.

Question 7

This question was well answered by most candidates with parts **(a)**, **(b)**, **(c)** and **(d)** receiving the better responses than part **(e)**.

(a)   Candidates did well on this question with the majority of candidates gaining the mark. The most commonly occurring incorrect response was attributed to candidates counting the row headings as a column or confusing rows with columns.

(b)   This was generally well answered but there was a minority of candidates who gave a column heading – D or E for example.

(c)   This was well answered but there was a minority of candidates who gave a column heading – A for example...

(d)   Most candidates gave the correct answer, although, some gave just the columns i.e. =B-C.

(e)   Most candidates made a good attempt to answer this question. Many gained full marks but some used badly constructed IF statements with missing commas or < instead of > and a sizeable number omitted the speech marks around the words "Yes" and "No".

Question 8

The vast majority of candidates gained full marks.

Question 9

Overall this question was answered well, although, answers to parts **(a)** and **(d)** produced responses which were weaker than the responses to **(b)** and **(c)**.

(a)   Most of the more able candidates answered this reasonably well but some of the weaker candidates struggled. Some wrote about performing actions which would not be allowed for candidates on a school network such as creating new accounts or introducing biometric authentication. When writing about passwords, it was not clear in some responses whether it was on the file or on the user access. Other answers were not clear about what was being encrypted and password protected.

(b)   The majority of candidates gained the mark here. Some candidates, however, seemed to choose a network device at random.

(c)   Most candidates were able to gain full marks on this question which was very well answered by the majority of candidates. However, some used brand names in their responses such as Facebook or Gmail.

(d)   This question was not as well answered. Many candidates appeared to understand the concept of encryption but were unable to give an advantage or disadvantage. Many candidates not seem to know that hackers could still access the data but could not understand it. More candidates could think of an advantage than a disadvantage.

Question 10

Only part **(b)** of this question was answered well by the candidates.

(a)   Many candidates missed the point of this question, writing about health hazards or repeating references to electrocution from the question. Even though the question highlighted two safety issues and the asked for two more, many candidates missed this and wrote about staying safe when using the Internet.

(b)   Most candidates gained two marks for this part. These were usually for replicating itself and deleting data. Few candidates mentioned that it was a program or software.

(c)   This part was not as well answered as part **(b)**. Many just re-worded the question and wrote about spying. This appeared to be a topic that many candidates had not revised.

Question 11

This question was reasonably well answered. Most candidates performed better on part **(c)** than the other parts.

(a)   Most candidates were able to give two methods, but few gained full marks due to a lack of full descriptions. A significant number of candidates did not make an attempt to answer this part.

(b)   There was a mixture of answers for this part. Some candidates wrote about expert systems. Many candidates simply listed some of the data that should be stored – 'Customer Name', 'Price' in general, just listing the field names rather than items that would be designed. A significant number of candidates did not make an attempt to answer this part.

(c)   Most candidates were able to name two implementation methods but some were only able to describe the method rather than giving an advantage. More than one in seven candidates did not make an attempt to answer this part.

Question 12

Candidates did very well on part **(a)**, and were able to pick up marks on part **(b)**.

(a)   Most candidates gained both marks.

(b)   Candidates did have some knowledge of video conferencing but many showed insufficient understanding to give more than one advantage. Most answers were incomplete.

Question 13

This question was very well answered, with the majority of candidates gaining all three marks.

Question 14

This question was reasonably well answered. Most candidates did better on part **(a)** than on part **(b)**.

(a)   Most candidates managed to gain one mark but many candidates were unable to make comparisons, giving a description of pen drive with no mention of the CD.

(b)   This part was not well answered. Most candidates were unable to make a comparison with many writing about the ease of getting viruses.

Question 15

Only part **(a)** was answered well by the candidates.

(a) (i)   Most candidates gained the mark. There were a few who gave keypad and some who omitted the device and just wrote down the medium.

(ii)   Most candidates gained the mark. There were a few candidates that gave card reader and some who omitted the device and just wrote down the medium.

(b)   Many candidates did not seem to understand validation. Nearly one tenth of all candidates did not make an attempt to answer this part.

(c)   This part was not well answered as the other parts. Only the more able candidates managed to gain more than one mark. Many answers were vague and several failed to use the fields given in the stem which would have helped shape their answer. Nearly one tenth of all candidates did not make an attempt to answer this part.

(d)   Of those candidates who answered this part, most did not seem to understand this aspect and gave the names of validation checks. More than one in ten of all candidates did not make an attempt to answer this part.

(e)   This part was slightly better answered but, nearly one tenth of all candidates did not make an attempt to answer this part. Most candidates who answered managed to gain one mark usually for checking the available balance. Only the most able gave answers in sufficient detail.

Question 16

This question was not as well answered as expected with very only the most able candidates gaining many marks and the majority of candidates gaining one or fewer marks.

A significant number of candidates made no reference to cheques. Some described cheques as only being processed once a month and others described the process of printing and issuing books of cheques. A small minority wrote about the processing of cheques being real time. One in ten of all candidates did not make an attempt to answer this question.

Question 17

Only part **(c)** of this question was answered well by the candidates.

(a)   A surprising number of candidates did not treat this as referring to online banking. Online shopping and booking tickets were frequently offered as responses. Those candidates who did gain a mark were awarded the marks for 'paying bills'.

(b)   This was well answered, with most candidates giving a correct answer.

(c), (d)   There were two main types of mistake in the responses to these questions. Many candidates overlooked the phrase "to the bank" in the wording of the question and described the benefits and drawbacks for the customer.
Candidates lost marks through incomplete responses. Some even thought that the staff should be paid less since they had less work to do and had more leisure time.

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/13
Written Paper

Key Messages

Candidates did well on questions that required simple and straightforward answers, but other questions required more explanation or discussion.

Candidates were expected to make comparisons when discussing advantages or disadvantages.

Candidates need to spend time reading a question thoroughly so that they are clear on what they were required to do.

A number of candidates left answer spaces blank without making any attempt to answer the question. This was a marked change from previous assessments.

General Comments

The majority of candidates did not appear to be as well prepared for this paper as in the previous sessions.

There were a number of areas of the syllabus that seemed to show a lack of understanding. Examples were in areas of appropriate use of different input devices, microprocessor control, validation, modelling, the use of robots, and online processing. The topics of relational databases, validation and documentation also seemed to cause problems for candidates. Another apparent lack of understanding related to hard disks.

Some questions which required selecting from a list such as **Questions 4**, **5**, **8b** and **10** were answered very well. This approach to answering other questions may be advisable where candidates could list their thoughts in rough before choosing those that would be appropriate to the phrasing of the question.

Candidates must read questions carefully before answering. This was particularly the case with **Question 8b** for a minority of candidates who ignored the requirement to use examples of data given. **Question 11** also provided several examples of this. **Questions 10** and **12** clearly stated the number of ticks required yet some candidates ignored this and ticked more statements than required. This caused loss of marks.

Comments on Specific Questions

Question 1

The majority of candidates gained full marks. Most candidates did better on part **(c)** than the other two parts. A small minority of candidates confused input devices with output devices and vice-versa.

(a)   Candidates did very well on this question. The majority of candidates gained both marks. A small minority of canddiates mistakenly gave storage devices for both answers or output devices for both answers.

(b)   This was generally answered well but there was a minority of candidates who gave storage devices or output devices for their answers. Some of these gave a correct output device for one answer but then gave an input device for the other.

(c)   This part was better answered than the other parts. Even those candidates that incorrectly gave storage devices in part **(a)** still gave the correct answers for this part.

Question 2

All candidates usually manage to gain some marks in this type of question, yet here, candidates seemed not to understand OMR, OCR and MICR. A number of candidates were unable to gain any marks for this question.

Question 3

Only the most able candidates gained marks for this question. Amongst these, a number of candidates correctly identified the barcode reader. Many candidates simply mentioned printer rather than specifying a dot matrix printer or even gave laser printer. Most candidates did not appear to know about the use of a chip reader and may have missed the point that the question referred to the <u>front</u> of a bank card.

A number of candidates did not give a device but gave the medium and too many candidates thought that a file server backup would be done using a memory stick.

Question 4

Nearly all candidates achieved full marks.

Question 5

Candidates found this question quite straightforward, but many did not do as well on part **(b)** as part **(a)** which in turn was not as well answered as part **(c)**.

(a) The majority of candidates gave the correct answer. Incorrect answers were equally divided between serial and batch.

(b) This was not very well answered with many candidates appearing to guess the answer with all the incorrect options being evenly distributed amongst the candidates' responses.

(c) The majority of candidates gave the correct answer.

Question 6

This question was well answered with the majority of candidates gaining at least 4 marks. REPEAT often had the 2 missing. A minority of candidates clearly did not understand turtle graphics and a number of others seemed to get the first four instructions correct but then included spurious instructions such as PENDOWN and PENUP.

Question 7

Many candidates offered very weak answers for part **(b),** despite doing extremely well on part **(a)**.

(a) Candidates did well on this question with the majority of candidates gaining both marks. The most commonly occurring incorrect responses were due to heat or power.

(b) This part was probably the least well answered question on the paper. Most candidates gave a general overview, mainly concentrating on what an oven does rather than what the microprocessor does. Almost one in eight candidates did not attempt this question.

Question 8

Overall, this question was not well answered, with a large number of candidates not attempting at least one of the parts of the question. Candidates answered parts **(a)**, **(b)** and **(c)** better than they answered parts **(d)** and **(e)**.

(a) Approximately **o**ne in six candidates did not attempt this question. Only a minority providing the correct answer. Candidates with the incorrect answers did not even name a validation check.

(b)   This was very well answered on the whole. Most candidates were able to give three correct answers, with a small minority confusing extreme with abnormal data. Some did not appear to understand test data and appeared to ignore the requirement to use the examples of data given.

(c)   Approximately **o**ne in seven candidates did not attempt this question. Of those that did, many only gained one mark with only the most able gaining two or three marks. Candidates who knew how to construct and write an IF formula gained good marks. This question required precision which some candidates were nto able to achieve. Many candidates did not put pass and fail in quotation marks.

(d)   Approximately **o**ne in ten candidates did not attempt this part. A surprising number of candidates were not able to describe the process. Candidates were often unable to give precise instructions on how to achieve the task correctly. A number of candidates did not mention D32 and went on to say 'go down 30 cells'.

(e)   A smaller but significant number of candidates did not attempt this question. There seemed to be a lack of understanding of this topic. Some candidates wrote about the cost and modifying but did not compare them.

Question 9

This question was very well answered by candidates, with the vast majority giving at least two good answers. Many seemed unfamiliar with flowcharts and to a lesser extent observation.

Question 10

This question was quite well answered with the majority of candidates gaining at least three marks. Many candidates believed that mistakes can never be made.

Question 11

Questions on this topic have appeared in previous papers. Most candidates gained some credit on part **(a)** but seemed to struggle greatly with part **(b)**.

(a)   Some candidates correctly described the high set up costs of buying the robots and the maintenance/repair costs but most stated it was expensive without expanding on this. Many knew that they needed maintenance but did not mention the cost implications. Candidates were expected to describe disadvantages to the company.

(b)   This question was not well answered by the candidates. The question required candidates to describe changes to the working environment. Many candidates appeared to misunderstand this. The common correct answer was that it is safer but many candiddates only seemed to register the words 'robot' and 'disadvantages', and gave answers such as losing jobs or redundancy,

Question 12

This question was not answered well by the candidates. The topic did not seem to be understood by many candidates. Fewer than half the candidates managed to give one correct answer. Many chose two batch processing applications indicating they did understand the difference. A significant number of candidates ticked more than the required number of statements resulting in loss of marks.

Question 13

This was a testing question and was not particularly well answered with many candidates other than the most able.

(a)   Nearly one quarter of the candidates did not attempt this question. Only the most able appeared to understand the topic mentioning primary keys but even then it was unusual for them to gain more than one mark. Many wrote about queries and other aspects of databases which did not address the question.

(b)   Answers were often general and too vague such as 'more organised'. A number of candidates just stated the virtues of having a database, relational or not. Again, a substantial number of candidates omitted this part but not as many as those for part **(a)**.

(c)   A significant number of candidates did not attempt this question. It would be anticipated that all candidates would have covered the topic of storage media and be particularly familiar with hard disks. Iit was only the more able who managed to gain many marks. Good answers such as storing a vast amount of information or that it has a large storage capacity were given by these candidates. Candidates who gained the higher marks described data access and data transfer speed.

(d)   One in six candidates did not attempt this part. The more able candidates did well on this question scoring highly. Most candidates, however, did not understand the concept of validation with many candidates just providing examples of data. It seemed that the majority did not know the names of any validation checks.

(e)   A large number of candidates did not even attempt this question. A wide variety of incorrect answers were given here including 'pen drive' or even just 'an input device'.

(f)   Many of the candidates who did not attempt part **(e)** due to their lack of knowledge of this topic still attempted this part of the question. Many of the more able gave good answers relating to greater accuracy and speed of data entry.

(g)   Many candidates did not appear to have prepared themselves for this topic. Many candidates named data fields that would be part of a sports club database rather than identifying items that need to be included in any user documentation. Approxim\ately, one in seven candidates did not attempt to answer this part.

(h)   Approximately one quarter of candidates did not attempt this part. Many higher ability candidates were able to give at least one item. Many candidates named data fields that would be part of a sports club database rather than identifying items of technical documentation.

Question 14

This question was fairly well answered by most candidates, with many gaining at least half the marks available. Candidates gave a good description of the differences between private and public. Candidates wrote about LAN and WAN when the candidates did not know the difference between the Internet and an intranet. Some thought that an intranet is where computers are joined by cable and with the Internet they are not. However, there were still about one in ten candidates who did not attempt this question.

Question 15

Most candidates performed quite well in answering this question.

(a)   Only the most able candidates were successful here with some achieving two or even three marks. Many candidates were unable to describe advantages to the individual of using microprocessor-controlled devices in the home.

(b)   This was not quite as well answered as part **(a)** with even the most able usually giving only one disadvantage. A number described hacking and stated dangers unrelated to the question.

Question 16

Many candidates just concentrated on how data could be illegally accessed, not commenting on the misuse of the data once accessed. For methods of prevention, many just offered one word answers failing to explain the method.

Question 17

The question required candidates to describe why computer systems have both backing storage and Immediate Access Memory. Many candidates only described the purpose or features of RAM and ROM which are part of Immediate Access Memory but did not describe why backing storage is required. Many candidates thought that backing storage is used for backing up data and stated the media they would use. A substantial number of candidates did not attempt to answer the question.

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/02

Practical Test A

General comments

Overall the paper performed well, providing tasks that would be familiar and accessible to all candidates as well as some challenging tasks which would provide discrimination for the most able candidates. The paper consisted of a word-processed document to be edited, a database task which required the production of two reports, and a presentation. The challenging activities lay at the end of the document in restructuring a table to contain provided text and the second database report that was to be laid out as labels. The presentation was quite straightforward.

Sometimes some of the printed evidence is not made available to the Examiner. This may be because the candidate struggles to finish all the tasks in the paper (particularly the second database report). It may also be due to the candidates not preparing themselves for all the printouts required in the paper. A good strategy may be to read the whole paper and mark the steps where printouts are required. Then, even if the paper is not complete, there would be the opportunity to print, for example, the evidence document in good time for the end of the examination time. Reading through the paper might have led some candidates who were unable to do the database task to realise that there was an independent task they could successfully tackle in the presentation and move on to this.

EVIDENCE DOCUMENT

Steps 1 and 2

A large number of candidates did not include the job titles for all contacts. Frequently, only one team member's complete details were displayed together with the print showing all group members. Creation of a group of contacts was generally well done.

Steps 3 to 5

Screenshot evidence of paper size, orientation and margin settings needed to be provided in this document.

Steps 27 and 28

Most candidates included a structure print for the database, although in this paper, some candidates also incorrectly imported the Min_Stock column.

Step 32

Evidence of the calculation carried out in Report 1 of the Database was very well done.

Steps 40 to 42

Evidence that transitions and animations had been applied to the slides in the Presentation section was provided through screenshot evidence included in this document.

DOCUMENT

Step 9

Headers were produced well, probably as no alignment specifications applied here, although in the footer, the complete file name and path was often not shown and sometimes alignment was incorrect.

Steps 7 to 18

There is confusion over serif/sans serif fonts. The main heading often had incorrect capitalisation or was incomplete – missing "a" (… for **a** gaming …). Formatting of the document was well done, with only a very small number of candidates who did not change the body text to 3 columns (occasionally 2) and also in the right place (sometimes on a new page), but line spacing and paragraph spacing was, on the whole, well done.

Selection of an appropriate image (computer mouse) was very well done and this was generally resized and aligned correctly, although sometimes text was in line with the image on one line only and not wrapped at the side.

The deletion of paragraph text was quite often not carried out or not done completely.

Quite a number of candidates failed to insert bullets on the correct text, sometimes on only the first required paragraph and last required paragraph or, if the bullets were correctly applied, the final paragraph was also included.

Steps 19 to 24

Resizing the table provided a challenge. A duplicate table was frequently inserted. Also many candidates added the complete text file but inserted it only in 2 columns. The final bullet in one or all 3 columns was very often missing and line spacing was often also inconsistent within the table. The various formatting features of the table were then applied with some success.

Step 25

There were two spelling errors to identify and change.

Step 26

The document was usually printed, although there was still the occasional candidate who recorded having worked on the document, but provided no printed evidence.

DATABASE

Report 1

Steps 29 and 30

This was generally completed successfully. However many candidates did not enter the 2 new records with 100% accuracy.

Steps 31 to 33

Calculations were on the whole well done. However, the text "Value of order" often contained incorrect capitals or punctuation. Occasionally the report did not display all data/field headings in full. This could impact on the new records added if not all data was available for inspection. On a very few papers the report extended to more than one page. Currency values (Euro+2dp) for 2 columns and the total were sometimes not done correctly.

Report 2

Steps 34 and 35

This report with a layout as a page of "labels" seemed to cause the most problems for candidates and even when done in this format some candidates did not ensure that the requirement of 8 labels to the page was adhered to. Often a tabular report was used rather than labels. Selection on 3 criteria proved a major stumbling block as many did not select Gaming as Yes – this meant that the number of records was frequently 33 and not 8 as expected. The correct calculation of Retail price was only achieved by a small number of candidates and the majority of candidates did not format the price correctly (Euro+2dp). The labels were also to be sorted on this price. When correctly laid out, the label display usually contained the header text and the candidate details, although these sometimes appeared just once on the page.

Presentation

Steps 36 to 43

This task was quite straightforward and was well done by those candidates who reached it. Quite a number of candidates did not use a master slide layout meaning that required elements did not appear on all slides, and sometimes if they were all present, they were not always in the same place on all slides – generally slide 1 differed.

E-mail

Steps 44 to 46

This was generally well done. Some candidates produced printouts which did not display both the To: and Cc: lines, so even if the recipients were correct the mark was lost for failing to use/display the Cc: line. This is a particular feature of a certain piece of software, and in their preparation, it would be well to draw the candidates' attention to this. When the candidates saved their document (Step 6), it was to be saved in the format of the candidate's chosen software and not in the .rtf format as supplied. The evidence of this change of format was looked for in the name of the attached file.

Many candidates produced an excellent copy of the email but did not enter the message text exactly as specified.

Centres should remind candidates that they should check their printouts before submission to ensure that they are not only correct, but of a large enough size and good print quality to be legible, otherwise they risk losing marks even though the data produced may be correct if Examiners are not able to see clearly to award marks. It is advisable that crossed out work not for marking should be kept separate from the work intended for marking and not mixed in with it.

INFORMATION AND COMMUNICATION TECHNOLOGY

Paper 0417/03
Practical Test B

General comments

The majority of candidates attempted and completed all elements of the paper. There were significant differences in the range of results from Centre to Centre and from candidate to candidate within Centres. The paper gave a good spread of marks. Candidate errors were more prevalent in the cascading stylesheet question and one of the spreadsheet formulae than on other aspects of the paper.

A small number of candidates failed to print their name, Centre number and candidate number on some of the documents submitted for assessment. Without clear printed evidence of the author of the work, Examiners were unable to award any marks for these pages. It is not acceptable for candidates to annotate their printouts by hand with their name as there is no real evidence that they are the originators of the work.

A small number of candidates submitted multiple printouts for some of the tasks and failed to cross out those printouts that were draft copies. Where multiple printouts are submitted, Examiners will only mark the first occurrence of each page.

Some candidates submitted cascading stylesheets that contained a mixture of CSS and HTML. Cascading stylesheets must contain only CSS, any HTML elements may negate the CSS so that the page will not work in any web browser. It is unfortunate that some web authoring packages have been known to introduce this into the stylesheets that they generate candidates should be able to edit both HTML and CSS to ensure that the work they submit is free from this type of package generated error.

For all tasks set within the context of this examination, candidates are expected to use the most efficient methods to solve a particular problem. This is not always the case, both in the spreadsheet and website authoring sections of the paper.

A significant number of candidates do not read, or choose to ignore the scenarios set within the paper. These scenarios, usually in italics, give general instructions for a whole section of the paper and apply to all the work submitted. They frequently indicate key instructions like; setting all CSS colour codes into hexadecimal, or in the spreadsheet setting all currency values to a specified local currency with a number of decimal places.

Overall the paper performed well, and a significant number of candidates appeared to have been better prepared for this examination than in previous sessions.

Comments on specific questions

Spreadsheets

Question 1

This question was completed well by most candidates, as evidenced by their subsequent printouts of this evidence document.

Question 2

Most candidates successfully downloaded the data files into their user areas.

Question 3

This question was completed well by most candidates.

Question 4

Many candidates completed the merge part of this task as specified, along with the grey background, 16 point font size and centre aligned text. Fewer candidates set the font as a serif font, with many leaving the default sans-serif settings for their spreadsheet. Not all candidates set the font colour to white, a significant number of candidates leaving this as the default colour which was black.

Question 5

Most candidates set the contents of the required cells to be right aligned. A small number of candidates forgot to right align the contents of cell F2 along with the other cells.

Question 6

This question was completed well by most of the candidates.

Question 7

Many candidates completed this question successfully. This question stated 'to count the number of item codes' which referred candidates to column B, although a significant number of candidates did not use this column for the range of cells to be counted. The most significant error was the use of a COUNT function rather than COUNTA.

Question 8

The majority of candidates successfully totalled the number of units.

Question 9

This question was completed well by most candidates.

Question 10

The vast majority of candidates successfully created the named range but there were a number who did not use the case as specified on the question paper. A small number of candidates had used a named range but not shown evidence of its creation.

Question 11

Most candidates hid the correct rows.

Question 12

A significant number of candidates did not answer this question fully. Whilst most demonstrated the correct use of a VLOOKUP or a LOOKUP function, few extracted the left character from contents of the cell in row B for this lookup. A small number of candidates who had created the correct named range failed to include it in the function.

Question 13

Many candidates completed this question successfully, however a number did not reference their lookup to the correct named file in comma separated value format.

Question 14

Most candidates completed this question as specified. Some used the PRODUCT function to achieve the correct result.

Question 15

Many candidates replicated their formulae correctly. A small number who had included strings in the formulae for column C rather than cell references could not replicate their formulae and therefore did not attain this mark.

Question 16

Most candidates completed this question as specified.

Question 17

This question provided a challenge to many candidates. The question was explicit in asking candidates to use the Sub total and number of units in the function, although some candidates used the Sub total and a variety of other cells in this function. Many candidates found selecting the appropriate logic difficult in the question. Some excellent answers like =F26*IF(B12<5,B15,IF(B12<20,B16,B17)) and =IF(B12>=20,B17,IF(B12<5,B15,B16))*F26 were seen but a significant number of candidates attempted to use invalid syntax like =IF(5=<B12=<19…

Question 18

Most candidates who attempted this question completed it as specified.

Question 19

Few candidates attained all the marks for this question. This required candidates to look at each cell and determine the most appropriate formatting for that particular cell. Many candidates applied the correct currency symbol to 2 decimal places to the correct columns, although a significant number of candidates erroneously applied this to most of the numeric variables in the spreadsheet. Few candidates identified that the cells holding the data for discount A, B and C should have been formatted as percentages, and even fewer identified that all these values used within the paper were also integers, so applied that formatting as well. This question proved a good differentiator of the very best candidates from the others.

Question 20

A wide variety of correct responses was seen to this question. Many attained correct results but there were a significant number of spelling, case, spacing and typographical errors. Some candidates ignored this step completely and added their name, Centre number and candidate number in the header.

Question 21

Although most candidates generated a formulae printout, a significant number of candidates printed an extra values printout for this stage. If candidates do not print the formulae it means that Examiners cannot credit them with a significant number of marks. A number of the candidates who printed their formulae did not extend the column widths, ensuring that the full formulae could not be seen by the Examiners. This resulted in candidates not receiving full credit for their answers.

Question 22

Most candidates completed this as required. There were a small number of printouts in landscape orientation and a small number printed two pages wide.

Question 23

This change was successfully made by the majority of candidates. There were a number of follow through errors due to different formulae being used by a number of candidates.

Question 24

Most candidates completed this as required, there were a small number of printouts in landscape orientation and a small number printed two pages wide.

Question 25

Many candidates changed the Discount values as shown in the question paper. As a result, this frequently set the formatting of these 3 cells as % values by default.

Question 26

Most candidates completed this as required, there were a small number of printouts in landscape orientation and a small number printed two pages wide.

Website Authoring

Question 27

Most candidates completed this question as specified.

Question 28

A small number of candidates completed this question as specified. The specifications for this question required candidates to identify the elements that needed to be specified under the table style and those under the td (table data) style. For example, many candidates set the padding for the whole table but did not specify the padding for each item of table data. Some candidates attempted to do this by setting all the attributes to table and td styles. The width of the table was fine but by using this method, it set the width of each element of table data to 80% of the width of the table. As the table was more than one cell wide, it was therefore impossible to set 2 or more cells side-by-side with each having 80% of the table width. Fewer candidates collapsed the table borders leading to double lines between each table data element. In many cases, the syntax of this was incorrect, several candidates erroneously included html tags within their css.

Question 29

A large number of candidates did not apply the css /* */ syntax to delimit the css comments. Of those who did, a small number included typographical errors in the displayed text.

Question 30

A large number of candidates did not apply the css /* */ syntax to delimit the css comments. HTML comments tags were frequently seen.

Question 31

Most candidates who saved their stylesheet completed this question as specified.

Question 32

Most candidates completed this question as specified.

Question 33

Most candidates completed this question as specified.

Question 34

Most candidates completed this question as specified. There were a very small number of candidates who specified an absolute file path (including drive letters) but this would not work in any machine as the file structure is likely to differ from the candidates' computer.

Question 35

Most candidates completed this question as specified.

Question 36

Most candidates used the correct image for the hyperlink but a common error was to set the hyperlink to the file N14roadbike.htm. Although the file roadbike.htm did not exist at this point, candidates were expected to follow the instructions on the question paper. If they wished to test the link works, they could have always created a temporary page with the correct file name. Many candidates did not create a new target window called **_road** as an attribute of the anchor.

Question 37

More candidates completed this question successfully than the previous step. The text Click here was, in most cases set as the anchor with a mailto: attribute. Most candidates added the correct email address. Fewer candidates added the subject line as specified, the most common error being initial capitalisation of the text **Website Offers**.

Question 38

This step was frequently performed well, the setting of the target window to **_hothouse** appeared to have been more taxing for some candidates but most of those who printed their html view managed to create the correct hyperlink from the anchor.

Question 39

Most candidates completed this step successfully. A few candidates presented screenshots from their web editing software rather than from a browser. It is important to note that some candidates cropped too much from their screenshot so that the Examiner could not verify that the screenshot was a browser view.

Question 40

Almost all of the candidates completed this question as specified.

Question 41

Almost all of the candidates completed this question as specified. A very small number attached files with alternative file extensions like .txt format.

Question 42

Almost all of the candidates completed this question as specified.

Question 43

This question appeared to have caused some problems for candidates. Similar questions have appeared in previous html sections of a paper but many candidates did not set a single <ul> tag before the list but within the table data and close the list with a tag at the end of the list, but within the table data. A number of candidates did not replace the paragraph tags <p> </p> with <li> and tags to open and close each list item.

Question 44

This question appeared to have caused some problems for candidates. Similar questions have appeared in previous html sections of a paper but many candidates did not set a single <ol> tag before the list but within the table data and close the ordered list with a tag at the end of the list, but within the table data. A number of candidates did not replace the paragraph tags <p> </p> with <li> and tags to open and close each list item.

Question 45

Almost all of the candidates completed this question as specified.

Question 46

Almost all of the candidates completed this question as specified.