APPLIED ICT

Paper 9713/11

Written A

Key Messages

Compared with last year, there were a larger number of candidates who appeared to have been well prepared for this assessment.

There are still a number of candidates who seem to rote learn answers from previous years' mark schemes. This is strongly advised against as, although questions might cover a similar topic, the scenarios might change considerably. In this paper, as with any exam paper at this standard, candidates are required to show a level of understanding as well as a depth of knowledge. As has been highlighted in previous reports, this cannot be achieved by simply repeating mark points from previous mark schemes. The points listed on mark schemes are often a summary of the knowledge required to answer the question and should not be interpreted as an answer in itself. Candidates need to show an understanding of the scenario. Centres are reminded that this is 'Applied ICT' and candidates are expected apply their knowledge to the context of the scenario. It is important for candidates to realise that they need to refer back to the scenario when answering questions.

Marks were distributed quite well with better ability candidates being able to score well on the paper. All questions differentiated well.

Comments on specific questions

Question 1

This was not answered as well as expected although some candidates scored well. Many candidates gave examples of devices but did not explain what they would be used for. The advantages provided by candidates were often lacking in detail. Centres are reminded that brand names are not allowed as examples by this syllabus.

Question 2

This question was not very well answered. Those candidates that did gain marks described conditional formatting very well. Many candidates mentioned graphs as a method but were unable to go on to describe how they would be used. More able candidates struggled to get three marks. Most candidates did not describe any form of comparison.

Question 3

(a) This was, again, not as well answered as expected. A number of candidates gave a variety of examples of how to use the system as separate answers. At this level candidates are expected to know more than this. Many answers were vague with obscure descriptions and did not identify specific items.

(b) This was the question candidates had most difficulty with. Many candidates answered with regard to the users of the system rather than the company. Of those that gave answers relating to the company most lacked specificity and gave rather generalised answers.

Question 4

Considering the technical nature of the question, this was better answered than the previous questions.

(a)   Candidates sometimes answered with sensors instead of units. Many correctly named the units but did not give adequate descriptions.

(b)   A number of candidates answered this question from the point of view of input and output devices in general rather than explaining the purpose of two of these devices. On the whole, however, this was quite well answered with many candidates giving examples of two such devices; fewer actually went on to explain the purpose of them.

(c)   Most candidates gained marks on this question but many of these did not go into specific detail regarding the microprocessor's role. The result was that few candidates were able to gain 3 or 4 marks. Many did not specifically identify that it is the microprocessor which controls the output from the system with a number of candidates thinking it is the sensor that does this.

Question 5

This question was not well-answered. Most candidates did slightly better on part **(b)** than part **(a)**

(a)   This was not very well answered. Many candidates gave examples of how to collect information when researching the system instead of describing methods used to record that information.

(b)   The candidates answered this part fairly well when compared to part **(a)**. A small number of candidates included the use of DFDs and system flow charts despite not having mentioned them in part **(a)**. Perhaps candidates would have done better if they had looked at the question as a whole before answering the two parts.

Question 6

This question was also not well-answered. Most candidates did better on part **(c)** than parts **(a)** and **(b)**

(a)   This was not very well answered. A number of candidates did not attempt it. Many candidates gave advantages and disadvantages rather than the actual features. Many gained marks for answers which included a number of tables and mention of a key field but this was often the sum total of a candidate's answer.

(b)   A number of candidates provided very weak answers such as 'it is accurate' or 'it is easy to use' which are not expected at A level.

(c)   This part was better answered though many candidates did dwell on the security aspects, failing to realise that this is just one aspect of data protection. On the whole candidates found this part of the question easier to answer than the other two parts.

Question 7

This question was the best answered question on the paper

(a)   This quite well answered with the vast majority of candidates gaining marks. A number of candidates, however, lost marks by using brand names, a practice not allowed with this syllabus. Some candidates gave uses of hardware devices and a number named the package without giving the use.

(b)   This was well answered. Most candidates had obviously been taught this well or had experience of this.

(c)   This part was also well answered.

(d)   This was reasonably well answered but where it was not it was because candidates dwelt on security issues. Where they did not gain marks it was because they either just named them or gave an inadequate description of them.

Question 8

This question was also fairly well answered, though most candidates did better on parts **(a)** and **(b)** than part **(c)**

(a)   This was fairly well answered although a number of candidates thought that siting the call centre overseas would increase the customer base.

(b)   This was well answered.

(c)   This part was not answered as well as expected. Many candidates gave answers related to health rather than safety. A number of candidates could not describe the issue adequately and many, even if they described the issue, were unable to suggest an adequate precaution.

Question 9

(a)   This part was answered better than part **(b)**. Candidates were often able to describe one or two of the working patterns but struggled for all four. A large number of candidates just reworded the phrase job sharing for number 3. Most candidates appeared unaware of what compressed hours meant.

(b)   This part was not well answered with many candidates giving very general answers rather than describing specific benefits to the company.

APPLIED ICT

> **Paper 9713/12**
> **Written A**

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APPLIED ICT

Paper 9713/13
Written A

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Marks were distributed quite well with better ability candidates being able to score well on the paper. All questions differentiated well.

Comments on specific questions

Section A

Question 1

(a)   This question was quite well answered with many candidates gaining the mark for naming the method but few managed to describe the process satisfactorily. A sizeable minority did not attempt this question.

(b) (i)   This question was well answered with most candidates gaining at least two marks.

  (ii)   Again this question was well answered with most candidates getting either one or two marks.

(c) (i)   This question was not well answered. Most candidates seemed to be guessing the answer. There were a few candidates who understood the topic and gained both marks.

  (ii)   This part question was the most poorly answered question on the paper with one sixth of all candidates not attempting it. Candidates did not appear to have much knowledge of this aspect of the syllabus.

Question 2

This question was not well answered with candidates gaining slightly more marks on part **(a)** than **(b)** with few gaining marks. Again, one sixth of all candidates did not attempt the question.

(a)   Candidates did not seem to be able to apply the scenario to the question although the more able candidates scored well.

(b)   Surprisingly, candidates performed better on this part than part **(a)**; few candidates appeared to have an understanding of computer aided assessment.

Question 3

This question was well answered with the vast majority of candidates gaining at least two marks.

Question 4

This question was not as well answered with candidates scoring low marks. Candidates frequently did not identify indexed sequential as the preferred method and those that did, did not go on to describe it in any detail.

Question 5

Overall this question was not very well answered except for part **(c)**.

(a)   Many candidates did not mention user or system requirements in their answer and seemed unsure of what these terms mean.

(b)   Many candidates did not seem to be aware of the various aspects of a system that need to be designed. These candidates were then unable to explain factors that would affect this. Nearly one fifth of all candidates did not attempt this part of the question.

(c)   Candidates did well on this question. Most candidates were able to describe the methods and more able candidates were then able to go on and give an advantage of the method.

(d)   Despite the question being about the evaluation of a system, many candidates decided to describe how the system would be tested. A large number of candidates described testing using normal, extreme, abnormal and live data. A sizeable number of candidates did not attempt this question.

Question 6

This question was quite well answered, particularly parts **(a)**, **(b)** and **(d)**.

(a)   This part of the question was quite well answered with many candidates gaining at least one of the two marks. There were, however, some confused answers with some candidates thinking that it would be easier to remember three characters. Others thought that the reason was speed with it being quicker to key in three characters than the whole password.

(b)   This part of the question was very well answered with most candidates gaining at least three marks.

(c)   This was reasonably well answered with the great majority of candidates gaining at least two marks. Unfortunately, despite the phrasing of the question many candidates included unemployment as one of their answers.

(d)   This part of the question was the best answered on the paper. The vast majority of candidates gained at least two marks.

(e)   This was not so well answered. Many candidates did not give sufficient detail in their answer. Many candidates mentioned hacking without going into detail. Descriptions of pharming and phishing were often too vague. Candidates appeared to concentrate on security issues. Over a third of all candidates did not write down five answers.

(f)   This was not well answered. A number of candidates did not seem to fully understand what job sharing is. Those that did then did not give a full enough description of the benefits to the bank. Over a quarter of candidates did not give three answers.

(g)   Most candidates did not do well in this part of the question. A third of all candidates did not provide three answers. Many answers were vague along the lines of paying more wages or staff becoming confused or workers not working very hard. Others answered from the point of view of the workers instead of the bank.

Question 7

This question was not well answered with nearly one quarter of the candidates not answering it at all. Part **(a)** was slightly better answered than part **(b)**

(a)   Those *candidates* that had studied this part of the syllabus did well but there were a number of answers who just briefly described what a Gantt chart is rather than the two types of activity that are represented.

(b)   There were very many vague answers to do with weekly and monthly planning. Other answers related to general time management rather than specifically how he would use a Gantt chart to help him plan the project.

APPLIED ICT

Paper 9713/02
Practical Test

Key messages

The majority of candidates completed all elements of the paper. There were vast 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. Candidates' application of the skills to calculate minutes and seconds within the spreadsheet gave a few incorrect solutions. Many candidates completed the evaluation of the two websites but few gave responses with the required depth of answers.

A small but significant number of candidates did not 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, marks cannot be awarded for these pages. It is not permissible 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 omitted one or more of the pages from the required printouts. A very small number of candidates submitted multiple printouts for some of the tasks and then did not cross out those printouts that were draft copies. Where multiple printouts are submitted, only the first occurrence of each page will be marked.

The word processing task highlighted some issues for candidates. While many demonstrated sound practical skills some did not attain many marks on the knowledge and understanding required for this paper. It was pleasing to see fewer candidates had copied text directly from the website or other Internet sources and submitted this as their own work than previous sessions. No credit will be given for sections of text copied and pasted from the Internet.

Comments on specific questions

Question 2

This required the candidates to examine the provided data files and provided some details of the syntax of the data presented. Many candidates appeared to find this step problematic, irrespective of their practical skills. The most common issue found across all ability ranges in the spreadsheet section was where candidates extracted single digits for the album number or track number, rather than the 2 digits specified in this question.

Question 3

This was completed well by the vast majority of candidates. A small number placed the text in the wrong places within the header and there were a small number of typographical errors in the data entry.

Question 4

As many candidates did not print the row and column headings within the formulae printout, it was not possible for Examiners to determine whether these rows had been hidden or deleted from the spreadsheet. As Examiners can only award marks for evidence that the tasks have been correctly performed, many candidates did not attain this mark.

Questions 5 to 6

Both of these questions were completed well by almost all candidates.

Question 7

The majority of candidates completed this question with 100% accuracy.

Question 8

The formula to lookup the name of the album was rarely completed with 100% accuracy. The lookup (or in some software packages HLOOKUP) was frequently used correctly, although few candidates extracted the correct two digits and turned these into a numeric value for the lookup reference. Most candidates used the correct lookup file, although a number copied the file into the workbook either on the same sheet or as a new sheet within the workbook but these solutions were not as specified in the question paper. Many candidates selected the correct lookup range although fewer achieved the correct return column or applied the 'false' parameter to ensure correct return of the data. The most common issue found across all ability ranges in this question was where candidates used single digit extractions from position 5 within their MID string extraction instead of the 2 characters from the 4th position.

Question 9

Many candidates selected the correct lookup range although fewer applied the 'false' parameter to ensure correct return of the data or achieved the correct return column. The correct return column also required the use of a string extraction, with 2 characters from the fourth position, again many candidates used 5, 1 by mistake. This also required one added to this value to give the correct offset value. The most common issues found across all ability ranges in this question was where candidates used single digit extractions from position 7 within their MID string extraction instead of the 2 characters from the 6th position and for 5,1 rather than 4, 2 for the return column.

Question 10

The majority of candidates completed this question with 100% accuracy.

Question 11

Many candidates set this to landscape although very few printed the work with the row and column headings visible. Several candidates did not enlarge the column widths so that all the formulae were fully visible to the Examiners. Some candidates who had placed their string extraction formulae using inserted columns or in a separate range and referenced this in the Album and Track formulae did not print all the cell ranges used in the formulae so credit could be given.

Question 12

The majority of candidates selected the correct data for this sort and performed it as specified. A small number of candidates sorted on a single column and lost the integrity of the data.

Question 13

This was attempted in a number of ways by different candidates. There were a number of methods used to attain the correct results. Few candidates (whichever method of calculation they had selected) took account of the need to carry an extra minute into the minutes column when the number of seconds was greater than or equal to 60. This question proved challenging for the vast majority of candidates.

Question 14

The replication was frequently completed as specified. A small number of candidates did not replicate to include row 19 despite clear instructions to do so.

Question 15

Many candidates set this to landscape although very few printed the work with the row and column headings visible. Several candidates did not enlarge the column widths so that all the formulae were fully visible to the Examiners.

Question 16

This was completed with mixed success. Several candidates did not follow the instructions for portrait orientation, gridlines or a single page.

Question 17

The majority of candidates completed this question with 100% accuracy although a small number of case or spacing errors were evident.

Question 18

The majority of candidates who attempted this question completed it with 100% accuracy.

Question 19

This question caused the candidates a few more problems. Changing of the running time (length) of the plenary so that the total time for the podcast was 30 minutes was not completed with the same level of success as the previous question with many candidates opting to change the value in row 19 rather than the running time.

Question 20

The majority of candidates completed this question with the same degree of accuracy as their answer to question 16.

Questions 21 and 22

These questions caused the candidates a number of issues. Few successfully completed the rules and evidence of the error messages in their evidence document. Whilst there were a number of attempted solutions to the rules, some candidates appeared to have omitted to test their rules or show the error message. The error message should contain information that will help the user to correct the data entry error, so should instruct them what is required with their second attempt at their data entry. Few seemed to demonstrate the need to present the user with this type of data, many opting for the default message of their package. The numeric rule appeared to be applied more successfully than the text validation.

Question 23

The majority of candidates created the test table as specified.

Question 24

This question gave mixed results. Candidates were given the freedom to select their own test data for the validation rules. Most did so successfully for the normal and abnormal data categories, but the majority of candidates who were less successful tried to use validation for the text entered into cell A22 for extreme data. The extreme data values had to be for a range test and this must (from the data given) be to test the entry to cell B22. Many candidates successfully understood the expected outcomes from each type of test data. A significant number of candidates placed screen shot evidence of the actual outcome into the expected outcome cells in the table which did not gain any credit. It is important that at AS level candidates understand that the predictions of the test results (expected outcome) are made before the testing takes place. Several candidates did not include screen shots of the testing.

Question 25

The majority of candidates completed this question with 100% accuracy.

Question 26

A small number of candidates did produce superb examples of work and scored highly on this question. There were a variety of responses to this question, ranging from candidates who had simply copied the content from the RockICT website and scored no marks, to those who responded with detailed analysis of each of the webpages. The most significant issue for many candidates was the lack of appreciation of the target audience and the needs of that audience. This could relate to images, colour schemes, themes, styles, currency of data or other age appropriate content. Despite 'teenage fans of rock music' being identified as the target audience there were few candidates who evaluated the sites with this as the context.

Question 27

The setting of the page size and orientation was performed well by the majority of candidates. Page margins presented more of a problem for a significant number of candidates. Some candidates did set all 4 margins as specified. The majority of candidates split the page into 3 columns, but not all set the column width so that there was a 2 centimetre space between them.

Question 28

The majority of candidates included the header but few gained full marks for this section. Not all candidates added an automated time and date or their Centre number on the right side of the page. Few candidates followed the instruction to ensure that "…the header aligns with the margins and appears on every page" by setting the header width to match the margin width.

Question 29

Similar alignments of the page margins and footer margins were discovered to those described in question 28 above. Many candidates had placed the required object/s in the footer but did not attain the marks due to their relative positions. The inclusion of an automated page numbering was well completed by most of the candidates, but its alignment was less frequently seen in the centre of the page.

Question 30

Almost all candidates set the header and footer font size to 12 points high. Far fewer candidates set the header and footer as a serif font.

Question 31

Almost all candidates set the body text font size to 10 points high, many of these included the required 1.5 line spacing. Fewer candidates also set the text to a sans-serif font, although in a small number of cases this was not set with consistency throughout the entire document, particularly where excerpts had been cut and pasted from the web pages as examples to support the candidate's answer. Most candidates set the alignment of the body text to fully justified.

Question 32

Most candidates included this image in the correct column. Very few resized it and aligned the image to within the column width. Text wrapping was also an area where several candidates did not demonstrate the required skills.

Question 33

The majority of candidates completed this question as specified.

APPLIED ICT

Key Messages

Many candidates appeared to know the syllabus content but did not apply their knowledge to the scenarios and context set in the questions. Candidates must read the scenarios carefully and apply their knowledge when answering the questions.

A few candidates did not attempt to answer all the questions and consequently lost opportunities to score marks.

Comments on specific questions

Question 1

This question was about the advance selling of tickets for entry to a zoo and the use of an expert system to identify animals.

(a)   This question was about the advantages to the zoo of selling tickets in advance and not to the visitor of buying tickets. Many candidates wrote about how the buying of tickets would be of benefit to the visitor and thus did not score many marks here. Candidates should read the questions carefully and apply their answers to the question asked.

(b)   This question was about the format of the screens shown on the touch screen and not about the touch screen itself. A significant number of candidates wrote about the features of the device rather than the format of the displays on the screen.

   (i)   Many candidates did not describe the display that would be shown on the screen in order to prompt the visitor and to capture the input from the visitor who wished to identify an animal. Some good answers explaining the type of questions shown, examples of the questions and the method of input used to collect data from the visitors, were seen.

   (ii)   Only a few candidates stated that the output from the expert system on the screen would be a probability of the animal being a particular animal. Most candidates simply stated that the animal would be named. Good answers described the output as showing a list, and photographs, of possible animals.

(c)   This question was about the security issues that surround the use of websites to sell tickets. Many candidates limited their answers to hacking and viruses and did not mention the other security issues. The solutions suggested need to be described in more detail to score marks e.g. "have anti-virus" is not sufficient.

Question 2

(a)   This question asked for the features of CAD software and candidates were expected to describe the features in terms of how they could be used in creating the designs. Many candidates just stated the features and did not describe their use. To score marks answers needed to be in more detail.

(b)   This should have been and easy question for most candidates while candidates knew about project management software, most candidates did not describe how it would be used in the production of the new building and only stated the software tools that could be used but did not describe their use. There were some good answers that described the software and how it would be used when creating the designs and these scored highly.

(c)   This question asked for descriptions of the use of sensors in monitoring the conditions in the building and good answers related these descriptions to the welfare of the animals. Answers that just listed sensors and what they do e.g. "temperature sensor to measure temperature" did not score marks.

Question 3

This question was about the use of computers in the marking of examination papers.

(a)   This question asked for descriptions of how the candidate answers would be input into a computer system rather than how the computer system would mark the answer, or how an Examiner would mark the answers. Most candidates appeared to understand this and most scored quite well on this question.

(b)   This question proved quite difficult for most candidates. Many described how exam scripts would be scanned and then how Examiners would mark exam scripts on screen which did not answer the question. Candidates were expected to describe, from the point of view of the examination board, the advantages and disadvantages if using computers in the marking of exam scripts. Those candidates that mentioned cost of Examiners and that of hardware and software, speed of results publications, and possible faults that could down the process scored marks on this question.

Question 4

(a)   This question was quite well answered by many candidates but few scored all four of the available marks. Marks were awarded for detailed comparisons of a PC and a supercomputer but not for simple statements such as "a supercomputer is fast."

(b)   Candidates were expected to explain how a weather forecast is created from data collected from e.g. sensors which is compared to historical data using supercomputers to carry out the complex calculations and modelling required for the task. Most candidates could describe the data collection and input to the supercomputer but could not then go on to describe how the data would be used to produce a weather forecast. Few candidates scored the highest marks on this question.

Question 5

(a)   This question was quite well answered by most candidates with answers that described output devices and their uses in a flight simulator. Some candidates, however, incorrectly wrote about input devices such as the "control stick/yoke" and its use in the simulated cockpit. Correct answers included references to loudspeakers for producing the engine sounds or reproducing the sounds of an aircraft cockpit and motors for moving the simulator to reproduce the sensation of flying.

(b)   This question was about describing the reasons that the company would use a simulator instead of actual aircraft. Simple answers such as "cheaper" or "safer" do not score marks as candidates must describe the reason in detail. Most candidates managed to score at least half of the available marks for this question with some good descriptions of the reasons.

(c)   This question was about how the simulator would reproduce the experience of an engine failure. This question was not well answered by many candidates. Poor answers included descriptions of simulated flames, explosions and crashes none of which are likely to be simulated. Better answers included references to choice of simulation program to be run, the output of warnings, changes in the way the simulator reacts to controls etc.

Question 6

(a)   Most candidates could describe the benefits to the airline of online booking but too many candidates wrote about the benefits to the passenger and thus failed to score marks. Candidates must read the question carefully and apply their knowledge to the context in the question.

(b)   This question should have been quite easy to answer but proved quite challenging for most candidates because, again, most answers did not explain *how* each was used to restrict access to customer details.

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(i) Descriptions of the way that firewalls work were required. Most candidates did not seem to have the knowledge to answer this question but there were a few good answers that described packet filtering by key word or by IP address.

(ii) Digital certificates were not understood and this question was not well answered at all. Candidates must be taught how digital certificates are used.

(iii) Most candidates could describe encryption and its use.

(c) Most candidates could score a few marks on this question but, overall, the question was not well answered. Candidates should be taught the functions of file servers and a PC.

Question 7

(a) This question was well answered as there many points that could be made about stock control and JIT. Credit was given for descriptions of the stock control process and for the use JIT.

(b) This question was well answered by many candidates. A common error in answering this question was to assume that the website was a general auction site selling many types of goods; the question refers to the sale of damaged goods using the website owned by the company. Candidates must answer the question in the context of the scenario if they are to score the highest marks.

APPLIED ICT

> **Paper 9713/32**
> **Written B**

Key Messages

Many candidates appeared to know the syllabus content but did not apply their knowledge to the scenarios and context set in the questions. Candidates must read the scenarios carefully and apply their knowledge when answering the questions.

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Comments on specific questions

Question 1

This question was about the advance selling of tickets for entry to a zoo and the use of an expert system to identify animals.

(a)   This question was about the advantages to the zoo of selling tickets in advance and not to the visitor of buying tickets. Many candidates wrote about how the buying of tickets would be of benefit to the visitor and thus did not score many marks here. Candidates should read the questions carefully and apply their answers to the question asked.

(b)   This question was about the format of the screens shown on the touch screen and not about the touch screen itself. A significant number of candidates wrote about the features of the device rather than the format of the displays on the screen.

   (i)   Many candidates did not describe the display that would be shown on the screen in order to prompt the visitor and to capture the input from the visitor who wished to identify an animal. Some good answers explaining the type of questions shown, examples of the questions and the method of input used to collect data from the visitors, were seen.

   (ii)   Only a few candidates stated that the output from the expert system on the screen would be a probability of the animal being a particular animal. Most candidates simply stated that the animal would be named. Good answers described the output as showing a list, and photographs, of possible animals.

(c)   This question was about the security issues that surround the use of websites to sell tickets. Many candidates limited their answers to hacking and viruses and did not mention the other security issues. The solutions suggested need to be described in more detail to score marks e.g. "have anti-virus" is not sufficient.

Question 2

(a)   This question asked for the features of CAD software and candidates were expected to describe the features in terms of how they could be used in creating the designs. Many candidates just stated the features and did not describe their use. To score marks answers needed to be in more detail.

(b)   This should have been and easy question for most candidates while candidates knew about project management software, most candidates did not describe how it would be used in the production of the new building and only stated the software tools that could be used but did not describe their use. There were some good answers that described the software and how it would be used when creating the designs and these scored highly.

(c)   This question asked for descriptions of the use of sensors in monitoring the conditions in the building and good answers related these descriptions to the welfare of the animals. Answers that just listed sensors and what they do e.g. "temperature sensor to measure temperature" did not score marks.

Question 3

This question was about the use of computers in the marking of examination papers.

(a)   This question asked for descriptions of how the candidate answers would be input into a computer system rather than how the computer system would mark the answer, or how an Examiner would mark the answers. Most candidates appeared to understand this and most scored quite well on this question.

(b)   This question proved quite difficult for most candidates. Many described how exam scripts would be scanned and then how Examiners would mark exam scripts on screen which did not answer the question. Candidates were expected to describe, from the point of view of the examination board, the advantages and disadvantages if using computers in the marking of exam scripts. Those candidates that mentioned cost of Examiners and that of hardware and software, speed of results publications, and possible faults that could down the process scored marks on this question.

Question 4

(a)   This question was quite well answered by many candidates but few scored all four of the available marks. Marks were awarded for detailed comparisons of a PC and a supercomputer but not for simple statements such as "a supercomputer is fast."

(b)   Candidates were expected to explain how a weather forecast is created from data collected from e.g. sensors which is compared to historical data using supercomputers to carry out the complex calculations and modelling required for the task. Most candidates could describe the data collection and input to the supercomputer but could not then go on to describe how the data would be used to produce a weather forecast. Few candidates scored the highest marks on this question.

Question 5

(a)   This question was quite well answered by most candidates with answers that described output devices and their uses in a flight simulator. Some candidates, however, incorrectly wrote about input devices such as the "control stick/yoke" and its use in the simulated cockpit. Correct answers included references to loudspeakers for producing the engine sounds or reproducing the sounds of an aircraft cockpit and motors for moving the simulator to reproduce the sensation of flying.

(b)   This question was about describing the reasons that the company would use a simulator instead of actual aircraft. Simple answers such as "cheaper" or "safer" do not score marks as candidates must describe the reason in detail. Most candidates managed to score at least half of the available marks for this question with some good descriptions of the reasons.

(c)   This question was about how the simulator would reproduce the experience of an engine failure. This question was not well answered by many candidates. Poor answers included descriptions of simulated flames, explosions and crashes none of which are likely to be simulated. Better answers included references to choice of simulation program to be run, the output of warnings, changes in the way the simulator reacts to controls etc.

Question 6

(a)   Most candidates could describe the benefits to the airline of online booking but too many candidates wrote about the benefits to the passenger and thus failed to score marks. Candidates must read the question carefully and apply their knowledge to the context in the question.

(b)   This question should have been quite easy to answer but proved quite challenging for most candidates because, again, most answers did not explain *how* each was used to restrict access to customer details.

(i) Descriptions of the way that firewalls work were required. Most candidates did not seem to have the knowledge to answer this question but there were a few good answers that described packet filtering by key word or by IP address.

(ii) Digital certificates were not understood and this question was not well answered at all. Candidates must be taught how digital certificates are used.

(iii) Most candidates could describe encryption and its use.

(c) Most candidates could score a few marks on this question but, overall, the question was not well answered. Candidates should be taught the functions of file servers and a PC.

Question 7

(a) This question was well answered as there many points that could be made about stock control and JIT. Credit was given for descriptions of the stock control process and for the use JIT.

(b) This question was well answered by many candidates. A common error in answering this question was to assume that the website was a general auction site selling many types of goods; the question refers to the sale of damaged goods using the website owned by the company. Candidates must answer the question in the context of the scenario if they are to score the highest marks.

APPLIED ICT

Key Messages

Many candidates appeared to know the syllabus content but did not apply their knowledge to the scenarios and context set in the questions. Candidates must read the scenarios carefully and apply their knowledge when answering the questions.

A few candidates did not attempt to answer all the questions and consequently lost opportunities to score marks.

Comments on specific questions

Question 1

This question was about the advance selling of tickets for entry to a zoo and the use of an expert system to identify animals.

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APPLIED ICT

| Paper 9713/04 |
| Practical Test B |

Key Messages

Most candidates for this session showed an appropriate level of skill with ICT applications. It was the problem solving nature of this paper that provided the discriminating factor in terms of attainment. It is clear that many candidates had been prepared for the exam by close scrutiny of the evidence required in previous papers; while this is essential it is can also be limiting. It is worth Centres noting that there are often several valid methods for tasks and the more successful candidates show evidence of tackling the tasks with insight and attention to detail rather than reliance upon practice gleaned from past papers.

Comments on specific questions

Task 1 – Prepare database

This task required candidates to use a .csv file of customer details to create a relational database that held personal data, credit card numbers and issuing bank codes in separate tables. It was pleasing to observe that candidates used a number of methods to extract and separate the issuing bank code from the file.

Almost all candidates were able to create a database that enabled them to progress to the next tasks but relatively few seemed to understand the requirement to create 3 tables and did not separate the remaining credit card numbers from the customer details table. Subsequent marks for relationships and explanations were, therefore, also lost.

The explanations for the relationships created were very poorly covered by the majority of candidates. Centres should bear in mind that a theoretical treatment of primary and foreign keys etc. is not required in this paper. For example, a simple recognition that a **Many-One** relationship between the Bank Codes and Customer Details tables is a consequence of **One** bank issuing **Many** cards would suffice in this case.

Task 2 – Import new data and prepare a report

Most candidates produced a correctly grouped, ordered and formatted report but some did not determine the correct criteria for the search. Many decided to include criteria for those customers whose credit cards had expired instead of just those who had used the Bank of Tawara. Since the New Bookings file contained the details of customers who had already successfully paid, the expiry date of the card was of no consequence. The resulting incorrect data did not, however, preclude successful pursuit of subsequent tasks.

Task 3 – Create and edit a macro to automate inclusion of the report into a pro-forma document.

The macro required was created successfully by the majority of candidates a number of errors were common. Probably the most important was that few candidates realised that the macro should "Open" the "Admin Notes" file. Most just let the macro "Activate" the window showing that the file was already open. In a repeatable solution this would not be the case.

The requirement to ensure that the macro contained no unnecessary instructions or code highlighted a significant lack of insight from almost all candidates that Centres might be wise to address. It must be desirable that candidates have an understanding of the code generated if they choose to record a macro rather than write one. Even just some simple experimentation with deletion of parameters is worth exploring in this respect.

Task 4 – Selection of recipients and Mail Merge of letters.

By far the most common cause of lost marks in this task was the failure to provide evidence of the selection method. The common methods were the use of a filter or "Skip If" condition in the word processor or a query in the database. In all cases the evidence must show the criteria used and not just the resultant data.

Interestingly for those who chose the database method, although the selection of recipients required the same query as that created in task 2 with the addition of some address fields, very few candidates confused the criteria as before.

Most candidates performed the mail merge successfully and very few did not "proof" the document for layout or formatting errors but a number failed to proof the validity of the conditional field that inserted the extra text for "Non-EU" holiday makers. With relatively small datasets provided, candidates should be encouraged to verify their results by manual inspection of the data and determine whether their merged documents are correct in respect of the recipient and the conditional inclusions.