APPLIED ICT

Paper 9713/02
Practical Test A

General comments

This paper proved challenging to candidates, therefore the paper gave excellent differentiation, particularly to higher level candidates. 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 and candidate errors were spread evenly over the sections of the paper, although the application of candidates' knowledge to produce appropriate and creative solutions to the theory questions caused a number of candidates some issues.

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.

Some candidates omitted one or more of the pages from the required printouts. 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. Candidates must be aware of the dangers of cutting and pasting cropped versions of evidence in order to save space on a sheet. It often looks impressive but this invariably leads to the loss of crucial data which could achieve marks. This had a particular impact in questions **2** to **7** where examiners could not accredit marks to candidates where there was no indication which cell the candidates work referred to.

A significant number of candidates printed work that was too small to read even using magnification devices. When text is so small, it is often impossible to ascertain the contents, especially when checking the syntax of spreadsheet formulae where a misplaced comma, bracket or semi-colon can have significant impact. Candidates MUST ensure that all text can be easily read with the naked eye.

As in previous sessions, some centres punched holes in the corners of the scripts, then joined the pages together with treasury tags or tied them with string. Sometimes these holes obscured text which was required for marking, resulting in the loss of potential marks.

Overall the paper performed very well.

Comments on specific questions

Question 1

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

Question 2

Almost all candidates successfully added the data from the file N16data.rtf into their spreadsheet, but few copied the missing data (like elements of the office address) so that it was visible for all employees. Of those candidates who attempted to do so, a significant number dragged the data down rather than copying and pasting so that the address and zip codes were not the same for all employees from this office.

Questions 3 and 4

The most common error was the failure to show which cell the formula had been placed in. This meant that no marks could be credited for the correct references for candidates who did not show these details. Where elements of the sheet were visible, examiners attempted to work out the cell referencing and credit candidates with marks. The majority of candidates used a VLOOKUP function, for this task LOOKUP did not work as the original data files were unsorted although a small number of candidates attempted to use LOOKUP functions. There were many candidates who did show the cell referencing and produced formulae which were efficient, although not all of these candidates demonstrated replication. Many candidates who showed the function editor in their spreadsheet software did not show which cell this referred to. A large number of candidates only showed the formulae for the first cell in the column, and gave no evidence to show that they had replicated this down for the rest of that column. A full range of marks were seen on these questions.

Question 5

Where candidates had shown in which cells the formulae were placed, then most completed this task with 100% accuracy. A small number of candidates replicated the formulae from question **3** which was not the most efficient solution to this question.

Question 6

Most candidates who attempted this question had a solution that joined the two names, either using the CONCATENATE function or using the & symbol. Fewer candidates retained the syntax from the question paper with a colon and a space between the names. Some candidates inefficiently used solutions like … &":" & " " & … A number of candidates reversed the order of 'Surname' and 'Forename'.

Question 7

The most common error was the failure to show which cell the formula had been placed in. This meant that no marks could be credited for the correct references for candidates who did not show these details. Where elements of the sheet were visible, examiners attempted to work out the cell referencing and credit candidates with marks. The majority of candidates who showed their cell referencing completed this task as instructed, although a small number transposed the references to columns C and D.

Question 8

This question was frequently answered without the application of the required knowledge from the theoretical aspects of the course. Initial identification of the duplicate values (or the potential for duplicate values) was often shown by the candidates. Less frequently was a reference to the requirements of primary key fields in a relational database to have unique data within a field. Few candidates went on to give examples (as specified in the question) to explain this, a small number gave a single example of the data structure.

Question 9

Finding the duplicate values was often attempted and completed with full or partial success. There was a wide range of solutions to changing some of these records, most successfully within the specified parameters of 7 or 8 characters for the Employee Code. Some candidates did not follow the instruction "do not remove these values" and found duplicates then deleted the employees from the data. Others decided that changing the employees name would solve the problem, again not an efficient solution in the context of the question. Some candidates described and used screen shots to show how they found the values but the majority omitted this step. Some of the best solutions seen included the use of conditional formatting to find the duplicates, then the addition of an extra numeric or text character to the data for one (or both) of the duplicate records.

Question 10

Most candidates completed this as specified, although a number ignored the capitalisation or underscores placed into the field names. The data types were frequently correct and candidates seemed to have a good grasp of the concept of creating the data structures for a single table. A small number of candidates erroneously identified the Currency field as a 'Currency' data type. Not all candidates showed evidence of the contents of the table.

Question 11

Fewer candidates completed this as well as question **10**. The choice of field names to match the naming conventions caused some issues, with many instances of the package generated Field5 etc. being evident. Not all candidates showed evidence of the contents of the table.

Question 12

Many candidates set an input mask to restrict the entry to an alpha character, with many correct responses using “L” rather than “A”. Fewer candidates also reduced the field length to a single character, therefore saving the storage/memory capacity required for the table. There were also a number of candidates who cropped their evidence so that the table and/or field name was not always visible.

Question 13

Most candidates who had created the two tables also created the relationship between the correct two fields. Where candidates had not imported all the data as specified, this was sometimes seen as an indeterminate relationship rather than one to many.

Question 14

There were a whole variety of responses to this question which gave a full range of marks. Many candidates ignored the instruction that “the report layout should look like this” and submitted responses with the default formatting for the package that they were using. There were some very good candidate answers that set all grouping and sorting as specified.

Question 15

A significant number of candidates ignored the instruction ‘Using your database software’ and calculated the totals in a spreadsheet. These solutions did not meet the needs of this question. Few candidates attained the correct calculations or showed evidence of their methods, with a significant number presenting their response but no method.

Question 16

Many candidates did not study the data before creating the chart. Because the data related to percentages, candidates frequently assumed that this should have been a pie chart and produced this as their response. The data was a comparison of the percentages from each office and therefore should have resulted in a bar chart. Few correct responses were seen to this question.

APPLIED ICT

Paper 9713/04
Practical Test B

General comments

More candidates than usual seemed ill prepared for this session and centres might bear in mind that this paper requires a full range of skills and experience in problem solving. Centres should not rely upon mere coverage of content from past sessions. Also worth noting is that scenario instructions at the beginning of the paper usually contain some important instructions that apply for all the tasks. In this case candidates were required to include a logo in the top right of each document, format all currency in Euros (€) and set all dates to dd/mm/yyyy format. Many candidates did not always remember to satisfy these strictures.

It seems that throughout this paper, candidates struggled with the use of calculations within a database.

Comments on specific questions

Task 1

(a) Set up a relational database

In the first task, candidates were required to import tables, set appropriate keys and relationships and include a calculated field for the Body Mass Index in the Member table.

The latter part of the task was clearly beyond most candidates. Many resorted to calculating the BMI in a spreadsheet and importing the results. This is a very inefficient solution and was not an acceptable method.

(b) Include data in a mail merge memo

In this part of the task, candidates had to select the members whose data was required for the memo and the trainers who should receive the memo. For the member data, the criteria were those members who took any Cardio or Weight Loss classes. Most candidates managed this successfully. For the recipients of the memo, however, many candidates did not identify the need for a wildcard search on the Cardio criterion. Simply inspecting the data in the trainers' table should have alerted candidates to this. A surprising number of candidates did not configure the trainers query satisfactorily and many tried and were unable to combine the criteria for both searches in a single query. This is clearly a matter of lack of understanding and experience. Centres would profit from exploring similar tasks.

The member data was followed through to the memos so candidates could access all the marks available for production and formatting.

Task 2

(a) Calculate the income for each class and produce a report

Several candidates resorted, once again, to carrying out the necessary calculations in a spreadsheet. These were not acceptable solutions. Of the 12 marks available for this part of the task, 10 were awarded for the method and correct inclusions in the report. Centres would profit from taking note of the common rubric for these papers stating that the most efficient methods should be used to solve each problem.

For the most part, those candidates who attempted the task using the database created in **Task 1** did complete the task successfully. Candidates used a variety of methods for counting the number of members in each class and most were acceptable solutions. By far the simplest, and therefore most efficient, method was to use the Count option on the member_number. The income was thus calculated by multiplying this count by the cost of each class.

(b) Calculate the Profit or Loss for each class and create a report with a chart

Part of the task was to subtract 25€ from the income calculated in **Task 2(a)** and full marks for this part could be achieved with a follow through from those results. Many candidates included the calculation in the query to select the trainer. Some carried out the calculation in the report. Either method was acceptable.

Selection of the trainer as the subject of the report required a parameter query on the trainer_forename and the trainer_surname. Upon running the query, entering the forename and then the surname was a little inefficient. The better solution was to create a field concatenating the two. Very few candidates thought to go that far but in this case only a single mark was lost.

The creation of the report from the data generated was straight forward but very few candidates produced a report that was of a professional standard or satisfied all the requirements listed in the question paper. In particular, the inclusion of the specified chart seemed to be a problem for many candidates. Those that managed to create a chart from their data gained credit, but many did not format the chart with the title and labels necessary for the chart to provide meaningful information. Centres would profit from emphasising the issue of formatting charts so information is clear.

Task 3 – Mail merge a letter with conditional text to selected customers

The recipients of the letter were to be restricted to those on the mailing list and aged over 35 years.

A conditional field was required to tailor the text for those taking specific classes.

Almost every candidate showed evidence of skill with mail merge and the use of a conditional field. Many, however, did not set the mailing list criterion and the correct calculation of member's ages was rarely seen.

Marks for the merge document were awarded for the insertion and spacing of the correct fields, the syntax of the conditional field and the mergefield criteria, so many candidates scored well for this part of the task.

It was pleasing to note that most candidates paid attention to spacing, spelling and punctuation in the conditional field and in the letters in general. Clearly many centres have addressed the issues of “proofing” mentioned in previous reports.

In conclusion

For this session, the main issues for centres to bear in mind seem to be:

- providing candidates with experience in the use of calculated fields within tables and calculations within queries
- formatting and labelling charts so that information is clear.

APPLIED ICT

Paper 9713/11
Written A

Key messages

Overall, candidates appeared to have been fairly well prepared for this assessment.

On much of the paper some elaboration and detail is required. It is not sufficient to give brief answers.

Questions requiring simple and straightforward answers were done well, while the answers to more stretching questions needed to contain more explanation or discussion.

Centres are again reminded that this is 'Applied ICT' and candidates are expected to 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.

General comments

There still appeared to be a degree of rote-learned answers from previous years' mark schemes. Rote-learning mark schemes is strongly advised against as, although questions might cover a similar topic, the questions themselves might change considerably. This was sometimes the case with **Question 4(a)** where some candidates answers related to shops rather than customers and sometimes banking rather than shopping. In **Question 4(b)** a number of candidates wrote about safety issues rather than health issues. For **Question 6(a)** a number of candidates gave benefits to the store rather than the worker.

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.

Comments on specific questions

Question 1

Candidates did quite well on this question, especially in parts **(a)** and **(b)**.

(a) Many candidates were able to gain some marks, but were often unable to describe appropriate different uses. A number of candidates repeated their answers giving the same use for different devices such as saving coursework. Where they listed more than one portable device they gave the use as 'transporting the work home' for each one.

(b) Spreadsheet was the best answered part of this question with descriptions of calculations and graphs the most popular answers. The database part was not as well answered. The candidates often just wrote about producing a report when this was merely repeating the stem of the question. More detail was needed. Many also thought that creating a relationship was enough for a mark. The weakest answers were in response to the browser part of the question with some very vague answers provided by candidates often unrelated to the scenario.

(c) Overall this part was disappointingly answered. A number of candidates produced reasonable answers, but some candidates explained what they would do with the web pages when they were found whereas the question specifically asked how they could be found. Candidates tended to give vague comments about using the internet to obtain information related to geography. Candidates who gained high marks correctly identified that the question required them to describe 'how to find' relevant pages.

Question 2

The majority of candidates found this question fairly straightforward. Most achieved at least two marks although a number of candidates contradicted themselves, e.g.

.txt file contains no formatting information.
.txt file contains text mixed with tags.

Question 3

This question proved to be the most testing question on the paper with parts **(a)(i)** and **(c)** proving quite difficult for candidates.

(a) (i) This question was poorly answered by most candidates with very few candidates' answers relating to the widths of the bars. Most focussed on the digits.

(ii) This was slightly better answered. Most common correct responses were that it is needed so that the number can be manually entered if the bar code failed to scan and that it is an ID number for the product. Many candidates were very vague in their answers.

(iii) This was not well answered with most candidates struggling to gain more than one mark. Many candidates described the process of scanning the barcode, rather than how the data was used for stock control or itemised receipts.

(b) Many candidates managed to achieve at least two marks. This was usually for describing the parallel running and direct changeover methods of implementation. Most struggled with pilot running and very few candidates were able to adequately describe how any of the methods could be used in the supermarket.

(c) Many candidates described the contents of the user documentation rather than the need for it. Candidates tended to simply list which items that would be found in in the user documentation. Some candidates, however, managed to gain marks by relating it to staff dealing with problems customers might have. A surprising number described documents a customer might produce to confirm their identity. Overall a question which was not as well answered as had been expected.

Question 4

Candidates, generally, performed well on this question but did better on part **(a)**.

(a) The majority of candidates gained at least half of the available marks for this question. Some candidates produced more detailed responses for benefits with weaker answers for drawbacks. There were, unfortunately, a number of answers relating to questions asked in previous years. Some candidate gave answers relating to the benefits and drawbacks to the store rather than the customer. Some gave responses such as 'can do banking at any time' despite the question referring to shopping.

(b) (i) This question was quite well answered. Most could identify a health issue but often struggled to describe measures to overcome them. Despite the phrasing of the question candidates often repeated the method for overcoming an issue for a different issue. A number of candidates gave safety issues for this question.

(ii) This was not as well answered as part **(i)**. Many struggled with data protection legislation often just quoting principles from it. As far as aggregated information was concerned most did not appreciate that the information or data of several people is combined. Most concentrated on the identification aspect.

Question 5

Candidates, generally, performed quite well on part **(a)** but less so on part **(b)**.

(a) The vast majority of candidates gained at least two marks. Candidates in the past have struggled with the topics of control and measurement so it was refreshing to see some good answers here. It is a pity, nonetheless, that a fair number of candidates still think that sensors control a microprocessor or computer.

(b) Candidates did not do as well on this question with most limited to just one mark. Most identified sound as an output but struggled to describe any other output. All candidates struggled to go on in any detail and describe it and very few were able to explain why the output is necessary.

Question 6

This question was fairly well answered. Most candidates managed to gain at least two marks for each part of the question.

(a) Many candidates gained marks for describing different working patterns but few candidates could describe how each would benefit the workers. This was especially the case with compressed hours. A sizeable minority gave benefits to the store rather than the workers including answers such as job-sharing – the store would get the skills of two workers for the wages of one, flexitime would allow the store to have longer opening hours.

(b) Most candidates did quite well on this question. Many gained two or three marks but often, however, candidates gave vague responses regarding the VLOOKUP part of the formula.

(c) This part of the question was not as well answered as expected. Candidates tended to concentrate on the type of advertising rather than the ICT methods. Candidates spent a long time giving vague descriptions of the use of posters and flyers. The more successful candidates focussed on ICT methods such as the use of websites and multimedia presentations.

APPLIED ICT

Paper 9713/12
Written A

Key messages

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Centres are again reminded that this is 'Applied ICT' and candidates are expected to 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.

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APPLIED ICT

Paper 9713/13
Written A

Key messages

Overall, candidates did not appear to have been as well prepared for this assessment as last year.

Candidates seemed to lack a good level of understanding of basic ICT terminology.

Answers were often too short to meet the demands of the question. On much of the paper some elaboration and detail is required. It is not sufficient to give brief answers.

Questions requiring simple and straightforward answers were done fairly well, while the answers to more stretching questions needed to contain more explanation or discussion. It appeared that candidates had some ICT knowledge but often did not show understanding.

Centres are again reminded that this is 'Applied ICT' and candidates are expected to 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.

General comments

Candidates were still prone to give brand names in their answers to **Question 3(a)**. Centres are reminded that no marks are awarded for brand names.

Comments on specific questions

Question 1

Candidates did not do as well as expected on this question with what appeared to be a fairly straightforward scenario. Overall they performed slightly better on **part (b)** compared to **parts (a)** and **(c)**.

(a) Many candidates did not seem to know what was meant by hard copy. Several gave input devices, or even laptop or tablet. Of those that did give output devices very few scored more than three marks, and were unable to describe them clearly, i.e. what is a laser printer, inkjet printer, for example. There were far too many vague answers. Being able to define the difference between an inkjet, laser and 3D printer seemed to be something the candidates found difficult to do.

(b) Although candidates did better on **part (b)** it was still not well answered.

(i) This part of the question was the best answered, but even here not many candidates scored more than two marks. Answers tended to be narrow in their focus into the magnetic cards susceptible to damage from magnetic interference, to being lost or stolen. Very few candidates were able to mention other items like queues at the entry point. A sizeable number of candidates mentioned hackers which was not really pertinent to the question.

(ii) Few candidates did very well on this part. There were again vague answers and not enough information on how the swipe cards could be used to access services the college would provide.

(c) Candidates in general did not seem as well prepared for this type of question. The answers were again generally vague and not many candidates scored high marks for this question, although most managed to make one or two points.

Question 2

There were many vague answers for this question and many were preoccupied with verification and validation. A number of candidates briefly mentioned proof reading but most did not write that correcting the document must follow to ensure it makes sense. Very few candidates seemed familiar with the relevant part of the syllabus 'Use manual methods and software tools to ensure error-free accuracy'. Features such as checking for consistent character spacing, widows and orphans were barely mentioned.

Question 3

Candidates, generally, did perform better on this question with **parts (a)** and **(b)(ii)** producing better responses than **part (b)(i)**.

(a) Most candidates gained at least two marks. This part of the question was in general better answered than a lot of the other questions. However, candidates lost marks as they used named software instead of giving the generic name. Others were too vague in their naming of the various types of software. Some candidates ignored the phrasing of the question and described spreadsheets and word processing which were mentioned in the scenario.

(b) This part was reasonably well answered though better marks were achieved on **part (ii)** compared to **part (i)**. This was mainly because descriptions involving demonstrating the candidates' understanding were required rather than just knowledge of facts.

(i) Candidates seemed to know what was required of the question but the answers lacked detail, often just giving one word answers. Others mentioned encryption but did not state what it did. Very few candidates gave biometrics or memorable data in their answers.

(ii) Candidates who had prepared for this topic did very well. Others gave vague answers and did not seem to know the definitive term for each item requested. There were quite a few candidates who gave the first four correct answers and did not then provide an answer for the final part.

Question 4

This question was reasonably well answered. Most candidates seemed to knowledgeable about the uses of robotic arms.

(a) There were some good answers to this question and candidates seemed to have a reasonable knowledge and understanding about what the question was asking giving reasonable advantages. Most candidates however were unable to demonstrate their understanding of the topic as they did not go into sufficient detail in their description of the advantage.

(b) Some candidates answered this well but a lot of candidates seemed to lack detailed knowledge of the process. There was a lot of confusion about how the programmer physically controlled the arm, and where the sensors were attached.

Question 5

This was, again reasonably well answered.

(a) Some candidates seemed to know about parallel running and direct changeover but a lot gave vague descriptions of phased implementation. Most candidates found it difficult to describe clearly the method of use in relation to the scenario of the factory, not able to clearly describe how these could be implemented in practice.

(b) Generally, this part was reasonably well answered by a lot of the candidates who could give some advantages and disadvantages. Most candidates gained at least two marks.

Question 6

This question was, overall, not very well answered. However, many candidates seemed to struggle with **part (a)**.

(a) Very few candidates achieved reasonable marks on this part. A lot of candidates gave a fairly good description for the line graph part of the question. Then their answers were vague for the other types of graph. There seemed to be a failure to fully understand what each graph type's advantages are for the different types of data on show. There were many vague answers, for example, candidates discussed pie charts and proportions and percentages but did not mention the fact that these were relative to each other.

(b) This should have been a straightforward question but many candidates struggled to answer it. Some candidates did achieve full marks, but a number of candidates described safety issues rather than health issues. A lot of candidates seemed to know the topic but their answers lacked sufficient detail to match that required at this level.

Question 7

On the whole this was the least well answered question on the paper with a fifth of all candidates not attempting either part.

(a) A sizeable number of candidates did not attempt this question and of those that did a lot gave vague answers. However, candidates were often able to achieve one or two marks with their descriptions of the structure of the file but then seemed to run out of steam thereafter. There seemed to be a general lack of detailed understanding of the topic.

(b) Many candidates gave vague overall descriptions of the updating process, but few were able to show a detailed understanding of master and transaction files. Some candidates were able to gi… a)ve good descriptions and gained high marks. Almost a quarter of candidates left this question unanswered.

APPLIED ICT

Paper 9713/31
Written B

Key messages

Many candidates appeared to have good subject knowledge and some excellent technical descriptions were seen but most did not apply their knowledge to the given scenarios or to the context set in the questions. It appears that candidates do not read the scenarios very carefully and fail to apply their knowledge when answering the questions. The consequence of this was once again, as has been noted in previous reports, that, while candidates appeared to know the syllabus content quite well, they failed to score the top marks because their knowledge was not appropriately applied.

Candidates must also read the questions carefully before attempting their answers as they appeared, also as noted in previous reports, to look for or 'spot' 'key words' in the question and then proceed to write answers based on those keywords with little application of their knowledge to the question or scenario. This may score a few marks but will not give access to the full range of available marks.

Too many candidates are still giving too many or too few responses and risk losing marks. It is very important that, when answering the questions, candidates read the rubric and give, where appropriate, the required number of responses. There were a number of candidates who gave more than the required two responses in e.g. **Questions 1(b)**, **(c)**, **2** and **5(a)**; the extra responses will not be marked so are a poor use of candidates' time in the examination.

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(a) The question asked for inputs from the car engine and this is shown clearly on the diagram as 'data' but a significant number of candidates described inputs that would come from the car computer system or the mechanic and not from the engine. Data from the engine *management* system was given credit. While candidates are not expected to know the intricacies of motor cars, some level of understanding about the source of the data is to be expected. Good answers referred to data from temperature, speed (revolutions per minute), or pressure sensors.

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This question was answered well by most candidates who could describe output devices and their use in the scenario of a racing car simulation. Disappointingly, some candidates gave answers suitable for *input* devices instead of the given *output* devices. Other poor answers described a 'motor' being used to turn the wheels/move the car – not the simulation – or failed to describe the use of the devices.

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Most candidates answered this question well giving good answers for the benefits such as 'less risk of injury than when driving a real car' and for the drawbacks such as ' the simulation may produce over-confidence in the driver as it is not real and they cannot be hurt'. Poor answers were those that listed the benefits and drawbacks without any explanation e.g. safer, cheaper and 'not real enough'. Candidates must provide discussion points and not just bullet points if they are to successfully access the marks.

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(a) This question required candidates to describe, and give the purpose of, items of information that would be necessary for the online booking of a holiday cruise. Details of the logging in process were not required. Good answers included e.g. the name of the person making the booking for identity purposes, the address for billing purposes and an email address to which to send confirmation of booking but to score the marks the purpose had to be given. Many candidates merely listed the items with no description of a purpose and therefore failed to gain credit. A few candidates referred booking airline seats – candidates must read the question carefully and not simply write down memorised answers from previous question papers or answers that relate to keywords such as 'online booking'.

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(c)(i) and **(ii)** E-receipts and e-tickets can show similar information but there are clear differences between the two. A receipt is proof of purchase and a ticket allows the customer to travel. Answers to these questions had to be different so, while candidates were allowed some flexibility in their answers, to gain both marks different responses had to be written.

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(a)(i) Most candidates knew about the use of a USB port so scored at least one mark and many scored the second mark for describing a suitable use. There were, however, a large number of candidates who confused the 'USB port' with a 'USB device'.

(ii) Many candidates scored a mark for describing use of a flash memory card for storage of e.g. video files but most failed to describe how this would be used with the entertainment system. Many stated that the card would be used in e.g. a camera suggesting once again, that candidates do not properly read the question and apply their knowledge to the given scenario.

(b) Most candidates could describe what MP3 files were but few managed to explain why MP3 files would be used in this scenario. Good answers referred to MP3 files being compressed to save storage space while the loss in quality is acceptable and that MP3 files can be played by most devices. Poor answers lacked detail and e.g. stated 'that MP3 files are used for music and the passenger can play their own'.

Question 7

(a) Many candidates appeared to be confused about how the distribution of television programmes by satellite systems works. Many referred, erroneously, to e.g. the TV sending a signal to a satellite to request a TV sports channel or that the satellite sends a file for download to the TV antenna. Good answers described how the sports programme originated and was sent from an editing studio to an uplink dish to a satellite and then transmitted back to a dish on the ship, and then how the signal reached the TV set/entertainment system in a passenger cabin. This question was not well answered.

(b) Many candidates muddled their answers with those that for part **(a)** with references to 'signals to the satellite' to request a particular movie. Few candidates appear to know how a video on-demand system would work and gave vague answers than did not refer to the specifics. Many referred to obtaining the movies over the internet. Good answers referred to the storage of movies on a ship-based server which responds to requests for a movie from menus, shown on an interface on the entertainment system's TV screen, by allowing the streaming of the movie over the ships LAN to the entertainment centre in a cabin.

APPLIED ICT

Paper 9713/32
Written B

Key messages

It is essential that candidates read the scenarios very carefully and apply their knowledge when answering the questions. Many candidates appeared to have good subject knowledge and some excellent technical descriptions were seen but most did not apply their knowledge to the given scenarios or to the context set in the questions. The consequence of this was once again, as noted in previous reports, while candidates appeared to know the syllabus content quite well, they failed to score the top marks because their knowledge was not appropriately applied.

Candidates must also read the questions carefully before attempting their answers as they appeared to look for or 'spot' 'key words' in the question and then proceeded to write answers based on those keywords with little application of their knowledge to the question or scenario. This may score a few marks but will not give access to the full range of available marks.

Too many candidates are still giving too many or too few responses and risk losing marks. It is very important that, when answering the questions, candidates read the rubric and give, where appropriate, the required number of responses. There were a number of candidates who gave five or more responses to questions that asked for only e.g. four as in **Question 1**. In a similar fashion, there was significant number of candidates who created numbered bullet points for questions that required a free-response set of explanations, for instance, in **Question 2**. As has been noted in previous reports, this is to be discouraged as, for example in **Questions 12** and **13**, candidates are asked to 'describe' or 'explain' a topic but when using numbered bullet points they rarely produced little more than simple points or statements with no description or explanations and so do not score the marks. Candidates who wrote in sentences and paragraphs produced descriptions/explanations that scored marks. In questions that require descriptions/explanations, points or simple statements are not enough to gain credit and score marks e.g. in **Question 12**, the simple statement that online questionnaires have 'radio buttons' is not a 'description of a feature of online questionnaires' as required by the question; to gain credit a candidate must describe what radio buttons are and what they do/make them suitable for gathering feedback when used in online questionnaires.

Some candidates did not attempt to answer all the questions and consequently lost the opportunity to score the marks. Once again, a small number of candidates wrote extended or replacement answers in the white spaces on the examination paper but this was much less prevalent than in previous series. Further, most of those candidates who did so made some reference or other indication that they had done this. This cross-referencing is to be encouraged, and is appreciated by the examiners, as the examiners cannot be expected to search every examination paper for a few lines of orphaned writing for every candidate. So, as stated in previous reports, when candidates write additional or extended answers outside of the lines supplied, it is important that candidates clearly indicate on the main question paper that they have done so and indicate where the examiner can find the additional parts to their responses – a simple 'continued on..', as written by a number of candidates this series, is sufficient. However, there are still too many candidates that did not do this.

Comments on specific questions

Question 1

Most candidates could answer this question well with good descriptions of the devices. While some candidates appeared not to know what the term 'network hardware device' means, most candidates could produce good descriptions. Merely naming the device is not a description so, as noted above, no marks were awarded for a single word such as 'router'.

Question 2

Good answers included connecting the memory stick to a laptop that was on the/a network, then logging in to the server or website with appropriate access rights and then using e.g. FTP to upload the files to the website server. Most candidates could provide some sort of description but few managed to score the full marks as their answers were lacking the required detail or restated the question e.g. 'transfer the information to the web server' is given in the question.

Question 3

This should have been an easy question to answer as it required candidates to explain how documents are found on a website and then to explain the process of completing and submitting a document. Many candidates scored the two marks available but too many candidates wrote only about finding the government website followed by lengthy descriptions of logging into the site.

Question 4

(a) This question did not require candidates to describe how account holders logged into their online bank account so this was not given any credit. Good answers referred to the checking of the balance of the account, viewing or downloading bank statements and transferring funds to another account. Poorer answers referred to online shopping – which is not included in bank account maintenance.

(b) Most candidates answered this question well with answers that included references to e.g. the account holder's mobile (cell) phone number being looked up and used by the bank to send SMS/text message to holder to ensure that a transaction originated from account holder. A significant number of candidates erroneously referred to the digits of a phone number being used to authenticate access to an online bank account.

Question 5

(a)(i) Most candidates could answer this question and score the mark. Good answers stated that 'authentication' is 'ensuring that the person is who they say they are' while poor answers muddled 'authentication' with 'authorisation'.

(ii) Most candidates could answer this question and score the mark. Good answers stated that 'authorisation' is e.g. 'allowing a person to do what they are trying to do' while poor answers muddled 'authorisation' with 'authentication'.

(b) Many candidates scored good marks on this question as many produced good descriptions of e.g. the use of user ID with password/ or PIN known only to the account holder, the use of transaction authentication numbers (TAN) with the bank creating TANs for customer or the use of one-time passwords. Poorer answers included references to the use of mobile telephone numbers, or the use of selected digits from the number, as being used for authentication purposes.

Question 6

This question required explanations so candidates were expected to elaborate on any points made to explain how access could be securely made to the expert system. Points that were not elaborated did not score marks. Good answers referred to using (virtual private network) VPN which require a user ID plus password to access, with the use of encryption setting up a secure 'tunnel' over public communication systems. Poorer answers were vague and referred loosely to 'logging in' and using the expert system; some candidates described the use of the expert system, or how the expert system worked, in some detail but this was not required by the question so did not gain credit.

Question 7

This was a question about the use of hardware and software that had been configured for use by physically disabled persons. References to configurations for cognitive disabilities did not gain credit.

Good answers explained how hardware such as head wands and braille keyboards could be used and configured and how e.g. sticky keys and filter keys could be set up/configured to assist in the use of computers. Poorer answers were those that simply stated that these hardware and software options existed. Credit was not given for answers that did not include explanations. Some candidates muddled the answers to this question with the answers to **Question 8**, and while some answers could, arguably or very tenuously, possibly be admissible for both e.g. configuring a web browser, the explanations were often so poor as to gain no credit.

Question 8

Most candidates could provide good description of how a website can be configured or set up and many scored good marks. Good answers included descriptions of e.g. coding websites with semantically meaningful HTML so that visually impaired people can use text-to-speech software and the avoidance of hard-coding of fonts to allow users to adjust/configure them to suit the needs of the individual, the use of textual equivalents provided for images for visually impaired with links being meaningfully named so users with poor sight can read/understand the content of the website.

However, a significant number of candidates repeated their answers to **Question 7** and failed to score marks. Further, many candidates, having failed to read the question properly, described how online shopping worked or how it could be used; this did not answer the question so did not gain any credit.

Question 9

(a) Most candidates scored the marks for this question. Surprisingly, and disappointingly, a significant number for candidates described the use of a spell checker in a word–processor and scored no marks at all; possibly because they did not know the answer and copied the 'answer' from **Question 9(b)**?

(b) Most candidates answered this question well, scoring all four marks.

Question 10

Most candidates scored some marks for this question. However, few were able to provide explanations beyond the need for all company documents to have a similar and consistent appearance and to allow the public to recognise the company branding. Few, if any, candidates referred to the reduction in errors when producing the leaflet and the fact that more than one employee can work on the leaflet simultaneously to produce a company-branded leaflet.

Question 11

This question was poorly answered by most candidates. Many candidates did not understand the term 'media' and produced answers that did not relate to the question. Few candidates produced meaningful comparisons of the media that might be used to advertise the product. Good answers described the use of adverting slots in TV programmes or the use of product placements. Advertising on websites with the use of e.g. popups and pop-unders was also well described in some answers, but many candidates merely stated that these could be used without describing how, or comparing their use to other methods. Candidates must read the question carefully.

Question 12

This question was not well answered at all. Often, candidates gave the benefits/advantages of using online questionnaires – as required by **Question 13** – and not the features. Further, most candidates who did attempt to answer the actual question listed the features but failed to describe how/why they were suitable for gathering feedback. Good answers referred to e.g. drop down lists that offered a choice to the respondent, radio boxes that allow only one choice to be made and text boxes to gather free response answers or comments, the inclusion of validation rules to ensure that only reasonable comments/information is collected or to place a limit on the number of characters in text boxes. Poor answers gave a list of questions that might, or should not, be included, or did not describe the feature.

Question 13

This question was not well answered at all. Some candidates could explain why costs might be lower for online questionnaires citing lesser printing costs or lower distribution costs but most did not. References to quicker were not explained – a good answer might have referred to the results of analysing the responses being available in a shorter time since the responses would already be in the digital domain and could be analysed very quickly. Good answers may have included the fact that participants can be selected or screened by being sent an email or text inviting them to answer the questionnaire, the ability to alter the order of questions as this can be changed more easily than on paper-based versions and to alter the style of the questionnaires or customising the questions depending on the responses to previous questions. Poor answers were vague, referring to easier, cheaper or quicker without any reasoning to support the statements. Some candidates gave nonsensical answers e.g. 'including a free sample with the online questionnaire'; presumably this is a very poor attempt to refer to practice of incentivising respondents with e.g. voucher codes but it shows a lack of understanding of the question topic.

APPLIED ICT

Paper 9713/33
Written B

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