APPLIED ICT

> **Paper 9713/02**
> **Practical Test A**

Key messages

For this examination, the main issues to note are as follows:

Candidates need to:

*   be more familiar with applying their theoretical knowledge to practical tasks.
*   ensure that the work they present to examiners is in a format that can be easily read without the use of magnification devices.
*   better understand the topic of corporate house styles.
*   better understand the concepts of validation and verification.

General comments

Many 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 did not cross out those printouts that were draft copies, which led to Examiners only marking 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. As in previous sessions, some candidates printed work that was too small to read even using magnification devices, especially in the spreadsheet work. Candidates <u>must</u> ensure that all text can be easily read with the naked eye.

Comments on specific questions

Question 1

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

Question 2

Most candidates created a presentation using the file provided to them. A small number did not use the source file.

Question 3

The white background and entry of the candidate details was frequently completed with accuracy; however, a number of candidates did not set the candidate details into a serif font and/or the bullets within the slides into a sans serif font.

Question 4

This question was attempted with mixed results. If candidates' had the underpinning knowledge they were able to perform well on this question but unfortunately too many candidates identified the corporate house style as related to dwellings and many mixed up their responses to validation and verification.

Question 5

Most candidates printed the presentation as specified.

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Question 6

Many candidates created the hyperlinks as specified and directed the user, when the hyperlink was used to the correct slides. A small number of candidates set the hyperlinks to re-open the current slide.

Question 7

Many candidates created the hyperlinks as specified and directed the user to the correct website's URL. A small number set this as a mailto: command to send an email rather than open the web page.

Question 8

Most candidates inserted the new row and added the correct text into cell A12.

Question 9

Most candidates replaced the word 'Task' with the word 'Event', although not all used the replace function within the software, as evidenced by occasional spelling or spacing errors.

Question 10

Most candidates inserted the new row and added the correct text into cell A12.

Question 11

This question was completed well by most candidates with the correct data added to the correct cells.

Question 12

Almost all candidates completed this step as specified in the question paper.

Question 13

This question was not always completed as specified, in many cases candidate's centre aligned and emboldened either row 1 or column A, but not both, or set row 1 as specified but only the top part of column A.

Question 14

This question was completed well by most candidates.

Question 15

This question was often completed using formulae that worked but not using an efficient method. The best candidate responses used a single SUM function like this: =SUM(B2,F2:I2)

Question 16

Replication of these formulae was completed as instructed by the vast majority of candidates.

Question 17

Most candidate's set columns B and J to be formatted as dd/mm/yyyy.

Question 18

The formulae inserted into column K were frequently incorrect. Many candidates did not refer to the data from the file **n17quarter.csv** in their solutions or included, within the formula, the required date formatting as: dd mmmm yyyy. There were many different attempts at concatenating the correct quarter number (in square brackets) but few candidates used a formula that gave the correct results for this element.

Question 19

Most candidates attempted this with a COUNTIF function, although other attempted solutions were also seen. A number of candidates used COUNTIFS, although this was not the most efficient method as this function expects two or more conditions rather than the one condition expected by COUNTIF.

Question 20

This was frequently completed as specified although some typographical errors were seen.

Question 21

This question was frequently completed as specified although not all candidates included the gridlines on their printout.

Question 22

This was frequently completed as specified although some typographical errors were seen, often relating to the use of upper and lower case letters.

Question 23

Although this was frequently completed as specified, a significant number of candidates did not show row and column headings or ensure all data was fully visible; often formulae were truncated.

Question 24

The data was frequently sorted into the correct order; the most common error was sorting the data but not maintaining its integrity.

Question 25

This question was frequently completed as specified although not all candidates included the gridlines on their printout.

Question 26

Many candidates set the print area from A13 to B20 but not all of them extracted only the quarters where a project ended. A number of candidates did not display row and column headings and/or gridlines on their printout.

Question 27

Few candidates produced evidence of attempting to edit their formulae. A variety of different methods were seen, many worked only for the data provided, but would not work if any of the data was edited.

Question 28

The majority of candidates submitting printouts for this question completed the header with 100% accuracy and produced the values printout as required by the question paper.

Question 29

The majority of candidates submitting printouts for this question completed the header with 100% accuracy and produced the formulae printout as specified; however, a number did not display the row and column headings and/or gridlines.

Question 30

Almost all candidates printed their Evidence Document.

APPLIED ICT

Paper 9713/04
Practical Test B

General comments

Many candidates seemed unfamiliar with the concept of commission for sales and the practicalities of modelling in general.

Comments on specific questions

Task 1(a)

In this task candidates were required to use named ranges to calculate the commission earned on sales by staff listed in the **TTSstaff** file. A table in the file showed that commission was to be paid at 5% on sales up to and including the Sales Target and paid at 10% on sales over the threshold. Many, indeed most, candidates misunderstood that the 10% rate was only applied to the value of sales over the threshold and applied the 10% rate to the value of all the sales if the threshold was reached. Fortunately, those candidates with the incorrect values for commission were not disadvantaged in subsequent tasks.

Task 1(b)

Candidates were also required to calculate the value of bonus payments to staff. To qualify for a bonus, staff had to meet three criteria and the value of the bonus payment was calculated using criteria shown in a table of named ranges. Several candidates did not use the named ranges and applied the values only. This meant that marks were lost for efficiency since varying the criteria for modelling purposes entailed changing the values in formulae manually.

It was pleasing to note that many candidates tackled the logic of the conditional formula successfully, although some did not set the final null condition to display €0 as required.

Task 1(c)

This part of the task was well done by almost all candidates. Marks for the subtotals for sales, commission and bonuses for each branch with grand totals for the entire data set, did not depend on the correct values being calculated in tasks **1(a)** and **1(b)**. Many, however, did not meet the requirements for the display of the data as specified in the bulleted list. In particular, very few ensured that the display of data for individual branches was not split over two pages. This may have been due to lack of experience with page settings and centres would profit from addressing this issue.

Tasks 2(a) and 2(b)

These tasks required candidates to model changes to the threshold value for commission and determine a value to meet a criterion.

The simple change to a new threshold value caused candidates no problem; most had used the named ranges and found this part of the task very straightforward. Very few, however, were able to determine the threshold value needed to ensure a maximum grand total for commission of €3 000 000. Candidates were clearly unfamiliar with either trial and error methods or the use of a goal seek facility. Both methods are fundamental to modelling and centres should ensure that candidates have sufficient experience of such methods.

Task 3

In this task candidates were required to calculate bonus values based upon revised criteria.

Many clearly found the efficient solution using IF(), AND() and OR() functions in the same formula too difficult. This was clearly a skill issue since most understood the logic and formulated other less elegant solutions successfully.

Tasks 4(a) and 4(b)

The first part of the task required candidates to examine a template merge document and determine the data needed for the merge. To create the data, it was necessary to amend the spreadsheet to include the appraisal category description for each member of staff and display each bonus value as a percentage of their salary.

Whilst many candidates managed to achieve the correct insertions for the merge document created in part **4(b)**, not many provided the evidence specified in the question paper. With a limited set of recipients and the possibility of manually editing the merged letters, candidates must provide evidence to support a valid mail merge for the award of the marks for the data source.

Almost all candidates managed to insert the required mergefields successfully, but many made inefficient use of the conditional fields for the appraisal category and the appraisal text.

For example, the condition Appraisal <C sufficed for categories A and B.

Similarly, very few candidates took enough care ensuring that all the currency values included the € sign and the bonus percentage sign was shown where necessary.

For the award of these marks, both issues could have been addressed without penalty, by manually editing the merge document, or indeed, manually "proofing" the merged letters.

In conclusion

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

- developing experience of modelling methods and in particular, determining values to meet criteria
- practice with the efficient use of logic functions in conditional formulae
- practice with page settings to ensure correctly distributed data in printouts
- the provision of evidence for methods or steps that are not explicit in solutions
- the importance of manual inspection of results to ensure specifications are met.

APPLIED ICT

Paper 9713/11
Written A

Key messages

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

Candidates showed a reasonable level of understanding though there were areas of the syllabus of which many candidates appear to lack detailed knowledge.

On much of the paper some expansion and detail is required. It is not sufficient to give brief answers. Questions which required a recall response were handled well by most candidates, but it would appear that they struggled to apply their knowledge and understanding to a given scenario.

Discuss questions require advantages and disadvantages to be given. It is important that comparisons are made rather than just giving features.

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

General comments

Candidates must read questions carefully before answering. **Question 5(b)**, for example, required candidates to discuss the advantages and disadvantages if using email compared to a phone conference yet a number of candidates just described how an email is sent. **Question 7(a)** required candidates to describe the features of a website without referring to visual appearance yet many ignored this and still wrote about the visual appearance.

Comments on specific questions

Question 1

Candidates did well on this question with the majority of candidates gaining at least three marks. Incorrect answers seemed to be evenly distributed among the provided responses.

Question 2

Candidates did not do as well on this question with many only gaining two marks. Again, incorrect answers seemed to be evenly distributed among the provided responses.

Question 3

This question was not particularly well answered. Most candidates did not appear to be familiar with the topic. However, most candidates who gained marks did so on the continuous process control. A small number appeared to understand batch process control in addition to continuous, but no candidate understood discrete process control.

Question 4

Candidates did quite well on this question. Most achieved marks more readily on part **(a)** than part **(b)**.

(a)   Many candidates gained at least three marks. Most seemed to understand the VLOOKUP function quite well.

(b)   Most candidates managed to gain at least one mark usually with answers relating to the speed of data entry.

Question 5

Candidates performed better on part **(b)** than part **(a)**, but few candidates achieved more than three marks overall.

(a)   It seemed that this was a question where candidates either knew the topic well or not at all. Many candidates did not achieve any marks although a few made a single point. A sizeable minority appeared to know the subject matter well and gained at least three marks.

(b)   Candidates who struggled on part **(a)** did a lot better on this part, but this was probably due to their greater familiarity with email since their answers relied heavily on their knowledge of email rather than that of phone conferencing.

Question 6

This question was fairly well answered with a number of candidates gaining half marks overall.

(a)   Most candidates were able to correctly identify the type of advertising and some were able to describe it fully, but were unable to give a reason why they had chosen it.

(b)   A significant number of candidates did not attempt this part of the question. Of those that did, many were unable to come up with more than two differences or similarities. The use of multimedia in slide shows was a very popular answer as was the fact that flyers can be discarded.

Question 7

(a)   Many candidates were able to give answers such as ease of searching and descriptions of items, but little else. A number of candidates still referred to visual appearance despite being told not to in the question.

(b)   Approximately one in five of all candidates did not even attempt this part of the question. Those that did attempt the question usually picked up at least one mark for either describing part-time work or job-sharing, though rarely both.

Question 8

This question produced some of the best responses on the paper with many candidates achieving at least half marks. Online shopping is a popular topic with many candidates and they were able to apply their knowledge well on this question.

Question 9

(a)   Although the question was using a different scenario, the candidates' knowledge of transaction files should have benefitted them here.

(b)   Only the more able candidates gained one mark. Very few candidates appeared to have a grasp of this aspect of the syllabus.

Question 10

(a)   Most candidates were able to only give a brief, vague, description. Few candidates were able to provide sufficient detail to gain any more than one or two marks. Many understood the need for setting up relationships, but few managed to mention the use of primary keys.

(b)   As many candidates were unable to describe how to set up a relational database, it followed that they would also struggle to give the advantages and disadvantages of them compared to flat files. The most popular correct answers related to the fact that data only needs to be amended once.

Question 11

This question produced very weak responses. One quarter of the candidates did not attempt the question.

APPLIED ICT

Paper 9713/12 **Written A**

Key messages

Overall, candidates appeared to have been better prepared for much of this assessment.

Candidates showed a reasonable level of understanding though there were areas of the syllabus of which many candidates appear to lack detailed knowledge.

On much of the paper some expansion and detail is required. It is not sufficient to give brief answers. Questions which required a recall response were handled well by most candidates, but they struggled to apply their knowledge and understanding to a given scenario.

Discuss questions also require advantages and disadvantages to be given. It is important that comparisons are made rather than just giving features.

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

General comments

Candidates must read questions carefully before answering. **Question 5**, for example, required candidates to give advantages and disadvantages of the methods of storage, but candidates were happy just to list the features of them without making any comparisons. Several wrote at length about memory cards and sticks despite the question clearly stating Solid State Drives. **Question 7(a)** required candidates to describe how they would download an image but many described how they would go on to edit the image which was not necessary. **Question 9(a)** required a formula to be written which would be easily replicable, but this last point was ignored by many candidates.

Comments on specific questions

Question 1

Few candidates gained full marks for this question. Many candidates thought that laser printers were best suited to continuous stationery and that graph plotters produced output which was inferior to dot matrix printers, both of which gained no credit.

Question 2

Candidates did better on this question than **Question 1** with many gaining full marks. The majority of those that did not thought that MICR is used to read bar codes.

Question 3

This question was not well answered as a whole with many candidates struggling to get more than two marks overall. A sizeable number of candidates did not attempt part **(b)**.

(a)   Most candidates were able to identify the term 'Conditional Formatting'. They then, however, did not clearly describe any steps regarding how it would be achieved. A lot of candidates did not clearly describe how to use conditional formatting in terms of how to create a rule and then format the background colour based on the rule.

(b)   Many candidates managed to answer this part of the question using examples of the different types of data. However, there was a distinct lack of mention of live data.

Question 4

Many candidates were able to gain some marks for this question, though very few achieved full marks. A lot of candidates' answers did not include a description of how the feature they mentioned would have an impact on the students' learning. A number of candidates answered this from the teacher's point of view rather than the students. There were a lot of answers based on improving the students' IT skills and other such answers that were not relevant.

Question 5

A lot of candidates did not give a comparison between SSD, HDD and Magnetic Tape. There were a lot of answers that were too vague as candidates were not able to use the correct terminology to describe clearly what the advantages and disadvantages were between these alternatives. Many candidates appeared to have some knowledge of these methods but were unable to apply knowledge in a manner that would enable them to make comparisons.

Question 6

On the whole, this question was well answered although candidates appeared to struggle with part **(c)**.

(a)   The majority of candidates gained marks on this question. It was generally well answered, although some candidates repeated the example used in the scenario of being well motivated and so could not gain credit for this answer. A number of candidates based their answers on the equipment needed to work from home rather than the personal characteristics.

(b)   This part of the question was reasonably well answered with the majority of candidates gaining two or more marks. There were a number of vague answers based on 'working from the comfort of his home' or similar which were too vague, but on the whole candidates came up with good answers.

(c)   Most candidates did not fare so well on this part of the question with many unable to gain more than one mark. Many candidates concentrated on how it would affect the workers without saying how this would benefit the company.

Question 7

This question provided very mixed responses with part **(a)** producing slightly better responses than part **(b)**.

(a)   Most candidates made a reasonable attempt at this question making at least two valid points, although some did not clearly describe what they needed to do to carry out the task. A lot of candidates made vague references to their searching technique without providing sufficient detail. There were a number of candidates who used brand names such as Google etc. Many candidates did not read the question carefully and described how the images would be edited despite the question only requiring candidates to describe how images would be downloaded, nothing more.

(b)   Very few candidates did very well on this part of the question. There were a lot of vague answers in particularly involving the description of images of low resolution. Some candidates did not gain marks as they were unable to make a comparison between the two different methods merely stating the features of each method.

Question 8

This was well answered by candidates with the majority able to describe at least three valid steps.

Question 9

Candidates often struggled to gain more than one mark for each part of this question.

(a) Most candidates did not identify the correct function, and those that did, then struggled to give the correct range and order of items.

(b) Several candidates gave vague answers and did not mention replicating or copying the formula. Where candidates had used the formula from their answer to **Question 9(a)**, they were mostly unable to explain how the different elements were examples of either absolute or relative referencing and what that meant.

(c) Few candidates gained both marks for this question. Most candidates successfully identified 'D3–E3', but few candidates were able to complete the formula with '+F3'.

(d) Candidates seemed to not fully understand what the question was asking them. Answers were too vague and although a few candidates were able to identify the correct validation rule, most were unable to describe its use in detail and on the correct data. There were a lot of answers based on items not shown in the spreadsheet which was provided for the candidates.

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Paper 9713/13
Written A

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Key messages

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Discuss questions require advantages and disadvantages to be given. It is important that comparisons are made rather than just giving features.

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

General comments

Candidates must read questions carefully before answering. **Question 5(b)**, for example, required candidates to discuss the advantages and disadvantages if using email compared to a phone conference yet a number of candidates just described how an email is sent. **Question 7(a)** required candidates to describe the features of a website without referring to visual appearance yet many ignored this and still wrote about the visual appearance.

Comments on specific questions

Question 1

Candidates did well on this question with the majority of candidates gaining at least three marks. Incorrect answers seemed to be evenly distributed among the provided responses.

Question 2

Candidates did not do as well on this question with many only gaining two marks. Again, incorrect answers seemed to be evenly distributed among the provided responses.

Question 3

This question was not particularly well answered. Most candidates did not appear to be familiar with the topic. However, most candidates who gained marks did so on the continuous process control. A small number appeared to understand batch process control in addition to continuous, but no candidate understood discrete process control.

Question 4

Candidates did quite well on this question. Most achieved marks more readily on part **(a)** than part **(b)**.

(a)   Many candidates gained at least three marks. Most seemed to understand the VLOOKUP function quite well.

(b)   Most candidates managed to gain at least one mark usually with answers relating to the speed of data entry.

Question 5

Candidates performed better on part **(b)** than part **(a)**, but few candidates achieved more than three marks overall.

(a)   It seemed that this was a question where candidates either knew the topic well or not at all. Many candidates did not achieve any marks although a few made a single point. A sizeable minority appeared to know the subject matter well and gained at least three marks.

(b)   Candidates who struggled on part **(a)** did a lot better on this part, but this was probably due to their greater familiarity with email since their answers relied heavily on their knowledge of email rather than that of phone conferencing.

Question 6

This question was fairly well answered with a number of candidates gaining half marks overall.

(a)   Most candidates were able to correctly identify the type of advertising and some were able to describe it fully, but were unable to give a reason why they had chosen it.

(b)   A significant number of candidates did not attempt this part of the question. Of those that did, many were unable to come up with more than two differences or similarities. The use of multimedia in slide shows was a very popular answer as was the fact that flyers can be discarded.

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(a)   Many candidates were able to give answers such as ease of searching and descriptions of items, but little else. A number of candidates still referred to visual appearance despite being told not to in the question.

(b)   Approximately one in five of all candidates did not even attempt this part of the question. Those that did attempt the question usually picked up at least one mark for either describing part-time work or job-sharing, though rarely both.

Question 8

This question produced some of the best responses on the paper with many candidates achieving at least half marks. Online shopping is a popular topic with many candidates and they were able to apply their knowledge well on this question.

Question 9

(a)   Although the question was using a different scenario, the candidates' knowledge of transaction files should have benefitted them here.

(b)   Only the more able candidates gained one mark. Very few candidates appeared to have a grasp of this aspect of the syllabus.

Question 10

(a)   Most candidates were able to only give a brief, vague, description. Few candidates were able to provide sufficient detail to gain any more than one or two marks. Many understood the need for setting up relationships, but few managed to mention the use of primary keys.

(b)   As many candidates were unable to describe how to set up a relational database, it followed that they would also struggle to give the advantages and disadvantages of them compared to flat files. The most popular correct answers related to the fact that data only needs to be amended once.

Question 11

This question produced very weak responses. One quarter of the candidates did not attempt the question.

APPLIED ICT

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

Key messages

Centres are reminded to ensure that candidates read the questions carefully before attempting their answers as candidates appear to look for, or 'spot', 'key words' in the question and then proceed to write answers based on those keywords; there is often little application of their knowledge to the question or scenario. This type of answer may score a few marks but will not give access to the full range of available marks.

It is essential that candidates read the scenarios before a set of questions very carefully and apply their knowledge when answering the subsequent questions. Many candidates appeared to have subject knowledge and some good technical descriptions were seen but most did not apply their knowledge to the given scenarios or to the context set in the questions. This lead to answers being generic and not addressing the scenario set. As noted in previous reports, the consequence of this was that, while they appeared to know the syllabus content quite well, they did not score the higher marks because their knowledge was not appropriately applied.

It is very important that, when answering questions, candidates read the rubric and answer the question in the appropriate manner. There were a significant number of candidates who created numbered bullet points for questions that required a free-response set of descriptions. As has been noted in previous reports, this is to be discouraged as, for example in questions 2 and 3, candidates are asked to 'describe' and 'explain' a topic but when using numbered bullet points they rarely produce little more than simple points or short statements with no description or explanations. These answers rarely score the marks. Candidates who wrote in sentences and paragraphs produced descriptions/explanations that scored marks. E.g. in **Question 12** to simply state 'use an Anti-virus package' is not sufficient; to gain credit a candidate must describe what the anti-virus software will do and to describe this in some detail.

Comments on specific questions

Question 1

This question required candidates to describe what was meant by a climate model. The question was not well answered as candidates tended to describe weather forecasting or expert systems and this lead to few marks being awarded. Good answers should have referred to climate models describing the behaviour of factors affecting Earth systems and examples of the climate drivers should have been ecosystems, cloud cover and ice masses instead of just temperature, rainfall and amount of sunlight.

Question 2

Even though **Question 1** was not well answered this question allowed candidates to gain more credit and in many cases all four marks were awarded. Good answers referred to, e.g. the use of sensors connected to a computer system, the need for an ADC to convert the analogue signal to digital so that it can be read by the computer and the different sensors that could be used with the reason for their use. Weaker answers still gained marks for giving suitable sensors.

Question 3

Some candidates answered this question well by explaining that data from the past could be input into the model and then the results from the model could be compared with the actual results that had happened. Weaker answers looked at inputting current data and then waiting for a number of months/years.

Question 4

Since candidates did not answer **Question 1** very well, this question was also answered poorly, since they assumed that climate models and weather forecasting were the same. Good answers should have referred to climate models only predicting trends in weather patterns and weather forecasting and climate models using different physical variables.

Question 5

This question was answered well with most candidates gaining one if not both of the marks. Good answers included, e.g. 'csv files have the data stored in tabular form with commas to separate each piece of information'. Weaker answers referenced the fact that the data was stored in a spreadsheet which did not gain any credit.

Question 6

Many candidates gained one of the two marks available for this question. These answers referenced, e.g. 'many software applications are able to read csv files' but often this was not explained sufficiently to gain the second mark.

Question 7

The use of commas in the actual data and this 'causing the data to be inaccurate' was the most common answer to this question gaining many candidates one of the two marks available. Few candidates were able to give any further explanation or suggest any method of correction, e.g. using quotation marks to enclose fields that contain commas to gain the second mark.

Question 8

This question was not well answered. Poor answers lacked any detail, e.g. merely giving 'the file contains some formatting' as a benefit. Better answers included benefits and drawbacks of the rtf format but they were still limited in their discussion.

Question 9

This question was answered well by most candidates who could describe the limitations of using a wireless access point to connect computers to a cabled network. Disappointingly, some candidates gave answers that described the advantages of using wireless access points which did not gain them credit. Other weaker answers described the limitations of the cabled network instead of the wireless access points.

Question 10

This question required candidates to describe how a system could be set up so that staff could securely access servers in different offices around the world. Points that were not expanded did not score many marks. Good answers referred to using (virtual private network) VPN with the use of encryption setting up a secure 'tunnel' over public communication systems. Weaker answers were vague and referred loosely to 'needing a login' and making sure anti-virus software was used and up to date; some candidates described how the physical system would have to be setup describing the type of network, e.g. star, bus, etc.

Question 11

This question was not well answered by candidates with many describing different types of viruses as examples instead of describing other malware. Good answers referred to, e.g. the method of phishing to steal confidential information by sending bogus emails to employees and the interception of data whist it is being transferred around the network.

Question 12

This question was quite well answered with many candidates gaining credit for, e.g. 'running anti-virus software so that you continually scan for viruses in files'. Good answers then continued to describe other methods, e.g. using firewalls to prevent unauthorised access, restricting or stopping employees from using external storage devices/memory sticks. Weaker answers referred to getting anti-virus software but then not describing what to do with the software.

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Question 13

Some candidates answered this question with generic answers referring to 'quicker', 'easier', and 'faster' to book their seats which did not gain then any credit. Good answers were seen and they referred to, e.g. allowing the customer to pick their seats from an image of the theatre, allowing customers to choose the number of seats required and confirmation emails are sent to the customer telling them what they have booked.

Question 14

Again this question was answered with generic answers, e.g. can be done from anywhere, easier for people/disabled people as they do not have to go out and therefore no travel needed. These answers did not refer specifically to the booking of theatre tickets and therefore did not gain credit. Good answers from **Question 13** then continued their answers through into this question and discussed the advantage of receiving confirmation of your booking straight away and the ability to have their tickets sent by email and not have to wait for them to be posted.

Question 15

Very few candidates linked their answers to this question to how a database would prevent the double booking of seats. Weaker answers described how a list of available seats would be checked to see if the requested seat was available and then the seat would be taken off this list once it was booked, with no reference to fields or flags. A number of good answers were seen and these referred to a field being set up called 'Booked', with a data type set as Boolean which would change from N to Y when the seat was booked by a customer.

Question 16

This question required candidates to discuss the benefits and drawbacks of making legal information available on the government website. Good answers referred to, e.g. legal information being available to everyone as the benefit and some people thinking that the little amount of information they have gained from the website makes then experts as the drawback.

Question 17

Many candidates did not explain their answers to this question in sufficient detail to gain the higher marks, some candidates simply giving a list of requirements for the design of the website so that it would be suitable for disabled users with no further explanation. Weaker candidates strayed from the design of the website into the hardware that could be used with no reference to how it would link with the website. Good answers should have referred to, e.g. viewers having sufficient time to complete tasks on screen, for people who have motor disabilities, colour vision deficiencies should be catered for by ensuring suitable colours are used and that text and background colours can be seen easily.

APPLIED ICT

Key messages

Centres are reminded to ensure that candidates read the questions carefully before attempting their answers as candidates appear to look for, or 'spot', 'key words' in the question and then proceed to write answers based on those keywords; there is often little application of their knowledge to the question or scenario. This type of answer may score a few marks but will not give access to the full range of available marks.

It is essential that candidates also read the scenarios before a set of questions very carefully and apply their knowledge when answering the subsequent questions. Many candidates appeared to have subject knowledge and some good technical descriptions were seen but most did not apply their knowledge to the given scenarios or to the context set in the questions. This lead to answers being generic and not addressing the scenario set. As noted in previous reports, the consequence of this was that, while they appeared to know the syllabus content quite well, they did not score the higher marks because their knowledge was not appropriately applied.

It is very important that, when answering questions, candidates read the rubric and answer the question in the appropriate manner. There were a significant number of candidates who created numbered bullet points for questions that required a free-response set of descriptions. As has been noted in previous reports, this is to be discouraged as, for example in questions 1 and 2, candidates are asked to 'describe' and 'explain' a topic but when using numbered bullet points they rarely produce little more than simple points or short statements with no description or explanations. These answers rarely score the marks. Candidates who wrote in sentences and paragraphs produced descriptions/explanations that scored marks. E.g. in **Question 4** to simply state CAPI, CASI and/or CATI is not sufficient; to gain credit a candidate must describe each of these interviewing techniques in some detail.

Comments on specific questions

Question 1

To score the higher marks, candidates had to refer to several possible benefits of storing the database on more than one server. Good answers referred to the benefits of, e.g. easier expansion and increased reliability due to data replication. Weaker answers focused on only one benefit.
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Question 2

Most candidates answered this question well. Good answers referred to different functions of a DBMS, e.g. the ability to define how the data is organised by adding, modifying or deleting tables or relationships and the ability to search or sort the database and display the results in graphs or reports. Weak answers did not give more than, e.g. 'Create a report', or 'Sort the data' without any further explanation of the function.

Question 3

Many candidates answered this question well giving good answers for the advantages such as 'people can answer the questions in their own time when it is convenient' and for the disadvantages such as 'some people may fail to respond to the questionnaire as they do not have internet access'. Weak answers were those that listed the advantages and disadvantages without any discussion, e.g. 'cheaper' and 'no one asking the questions'. Candidates must provide discussion points and not just bullet points if they are to successfully access the marks.

Question 4

Many candidates could provide good descriptions of how computers can be used when carrying out research by personal interviewing and many scored good marks. Good answers included descriptions of, e.g. Computer Assisted Personal Interviewing allowing the interviewer to ask questions and then enter the answers on the computer, Computer Assisted Self Interviewing in which the interviewer is not present and the person being interviewed can answer questions using the computer and Computer Assisted Telephone Interviewing where the computer dials a number and then people answer questions over the phone. However, weaker answers limited their response to just CAPI, CASI and CATI with no further description of the method.

Question 5

This question required candidates to explain the features of a computer that could be used as a server for a bank's online banking service. Good answers referred to the need for large amounts of secondary storage in order to store the vast amounts of customer records and the requirement of high performance processors so that many customers can access the system at the same time. Weaker answers strayed from the hardware requirements of the answer into software and security requirements which did not gain them credit.

Question 6

Many candidates were able to gain marks on this question and described the use of a VPN to allow branches to appear as if they are all on the same network and the use of encryption to ensure that transmitted data remains secure. Weaker answers referred to the use of a router or modem to connect the LANs into a WAN.

Question 7

This question was not well answered by candidates. Candidates gave generic answers such as 'can be accessed at any time and from anywhere' which did not gain credit as the question clearly refers to the use of online banking by disabled users and answers must relate to the question/scenario.

Question 8

Good answers showed an understanding of data transfer by HTTPS, describing using secure socket layer and/or digital certificates so that unauthorised people were prevented from seeing customers' details. Weaker answers lacked any description and often just referred to scrambling the data so that it is unreadable.

Question 9

Again this question was not well answered by candidates. Candidates gave generic answers such as 'students can access work at any time and from anywhere' which did not gain credit as the question clearly refers to the assessment of progress of the students' learning. Good answers should have referred to the customisation of tests for individual students, the analysis of the results in different formats and over a period of time so that students' progress can be monitored and the use of spreadsheets and/or databases so that results can be analysed easier and students compared.

Question 10

(a)   This question required candidates to describe the features of web authoring software that a teacher could use to prepare an online presentation. Many candidates described creating the presentation using presentation software with no mention of web authoring software and this gained them little or no credit. Good answers described the use of links to move around the presentation or access other web pages and the ability to use style sheets to control the style of the presentation.

(b)   This question was not answered well by candidates. Some candidates could indicate that overlay software could be used to make an image transparent or to rotate or scale the image but few answers went any further.

Question 11

This question required candidates to compare and contrast the use of computers with traditional methods which do not use computers to help learning. Many candidates were able to gain credit for this question and answers included, e.g. students' motivation being increased by the use of computers as they are more engaged, students are able to work at their own pace when using computers and group sizes are larger when using traditional methods. Weaker answers tended to look at the argument from one side and compare the two methods.

Question 12

This question was generally answered quite well by candidates. Good answers referred to the need for security of question papers before and after the exam; and the possibility of plagiarism occurring if students are given access to the internet or USB drives.