APPLIED ICT

> **Paper 9713/11**
> **Written A**

Key Messages

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

Candidates showed a higher level of understanding though there are still areas of the syllabus which appear to be left untouched by many candidates. This was particularly noticeable with topics such as control systems.

However, as with previous years there are still a number of candidates who seem to rote learn answers from previous years' mark schemes. We strongly advise against this, as although questions might cover a similar topic, the scenarios might change considerably. This was particularly the case with **Question 5**. 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. Candidates need to show an understanding of the scenario. Centres are reminded that this is 'Applied ICT' and candidates are expected apply their knowledge to the context of the scenario. It is important for candidates to realise that they need to refer back to the scenario when answering questions.

Overall, however, marks were distributed quite well with more able candidates being capable of scoring well on the paper. All questions differentiated well.

Comments on specific questions

Question 1

Candidates did fairly well on this question but part **(b)** was not as well answered as the other parts.

(a) This was a straightforward question which was well answered by most candidates, although a small number of candidates did not seem to understand what an end effector is or appeared to guess the names.

(b) Many candidates found this difficult and did not seem to be aware of the process or were quite vague in their answers. A number of candidates just wrote about how the programming instructions would be written without mentioning the guidance required or sensors.

(c) This was probably the best answered part of the question. Many candidates gained marks for greater accuracy and lower running costs but other answers were not well explained.

(d) This part was not as well answered as parts **(a)** and **(c)**. Many candidates were aware of set up/maintenance costs but were preoccupied with robots needing electricity, forgetting that humans would do also, to operate the machinery.

Question 2

Many candidates were able to gain some marks in this question.

(a) Candidates were usually able to gain marks for describing the types of advertising. A number, however, failed to give adequate examples for business advertising or gave examples using brand names, failing to describe them adequately.
Despite the scenario, a number gave product advertising as their answer for most appropriate.

(b)   Candidates did quite well on this question. Those that did not tended to be candidates who make a comparison between flyers and websites.

Question 3

This question was not as well answered as the previous questions on the paper.

(a)   Many candidates were able to identify the components of a data flow diagram but found it difficult to go on and describe how they would be interpreted. A large number of candidates concentrated on factors which would affect decisions but did not relate these to a data flow diagram. Some just gave examples of hardware without saying how they would be identified.

(b)   Surprisingly, many candidates did not attempt this question. Most candidates did not appear to have a great knowledge of navigational aids. Those that did concentrated on forward and backward buttons and little else. A number gave general features rather than navigational aids.

(c)   This was not as well answered as anticipated. Most candidates wrote general answers about the use of normal, abnormal and extreme data although the question required detailed answers. Some candidates gained marks for descriptions of user testing.

(d)   This part of the question was answered quite well with some candidates scoring very highly. A number, however, failed to describe the method after naming it.

Question 4

This question was answered quite well with the majority of candidates gaining a number of marks.

(a)   Most candidates scored highly on this question. Where candidates lost marks it was usually with the purpose of the webcam with several failing to identify it as an input device.

(b)   Surprisingly, many candidates did not gain more than one mark for this question. Many wrote about not having to travel but did not go on to say why this was a benefit. A number even referred to Examiners not having to hire a conference hall.

(c)   This was not as well answered as expected. Many candidates concentrated on costs and did not appear to have read the scenario carefully quoting the costs of providing a monitor, keyboard and mouse.

Question 5

This question was answered fairly well with the majority of candidates doing well on part **(b)** but not as well on parts **(a)** and **(c)**.

(a)   This question was not as well answered as expected. Many candidates failed to include the purpose when describing the steps. Most seemed to know the steps required in the process but without stating the purpose of them were unable to gain marks. A worrying number went through steps involving the selection and placing in a shopping basket despite the question stating that this had already occurred.

(b)   This question was well answered with the majority of candidates gaining 2 or more marks. A number of candidates failed to gain marks because when mentioning travelling they failed to mention in their answers costs or time or even that it was to stores.

(c)   A number of candidates failed to read the question carefully and gave answers which were drawbacks to the customer but not necessarily the company. There were some good answers particularly from the better candidates.

Question 6

This question was answered fairly well by the more able candidates.

(a)   Many candidates appeared unable to describe the use of Interactive Voice Response in any de...
giving general answers such as 'it can help the customer to solve their problem' or 'tells the
customer what they want to know'.

(b)   This was a better answered part with a number of candidates giving at least two valid descriptions.
Marks were lost as candidates often failed to specify the repetitive nature of the actions or the fact
that it is long term use which causes many of the problems.

(c)   Again, candidates had failed to read the question carefully and failed to provide a description of the
problem or measures to minimise them. Candidates frequently gave the description without the
measure or the measure without the description

Question 7

This question was not answered particularly well, though candidates did better on part **(a)** than parts **(b)** and
(c).

(a)   Many candidates gained one mark but were unable to gain a second. Answers lacked the depth
required with the choice of times of work given but not expanded upon. Some candidates seemed
to be under the impression that flexible hours gave the worker carte blanche to work as little as
they wanted. Others seemed to equate it to working part-time.

(b)   This was not well answered. Many candidates wrote about lower wages, fewer employees and
less working space required.

(c)   Candidates seemed to think that flexible working hours equated to part time working and gave
answers such as a greater amount of leisure time or spending more time with their family without
saying how this could happen.

APPLIED ICT

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

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            candidates gained marks for descriptions of user testing.

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APPLIED ICT

Paper 9713/13
Written A

<u>**Key Messages**</u>

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

Candidates showed a higher level of understanding though there are still areas of the syllabus which appear to be left untouched by many candidates. This was particularly noticeable with topics such as control systems, payroll and systems documentation.

Areas which seem to have been well covered were working practices, use of ICT in publishing and online shopping.

It was noticeable that a number of candidates failed to refer to the scenario when answering questions. There are very few questions which can be answered without referring back to the scenario.

Candidates are to be encouraged to put detail in their answers rather than offering general or vague answers and should explain clearly what they mean by their answer.

Overall, however, marks were distributed quite well with better ability candidates being able to score well on the paper. All questions differentiated well.

Comments on specific questions

Question 1

(a)   This question was quite well answered. Many gave good definitions but seemed to mix up the processes when giving examples from the scenario. This was particularly the case with continuous and discrete process control. More able candidates answered this question very well and scored high marks.

(b)   This question was quite poorly answered with one sixth of all candidates not even attempting it. Once again with questions regarding microprocessor control candidates often gave a general answer rather than giving specific answers as required by the mark scheme.

Question 2

The responses to this question were fairly mixed with candidates gaining good marks on part **(b)** but not scoring at all well with the other two parts.

(a)   Candidates did not seem to be able to apply the scenario to the question. Many did not seem to appreciate that the question was referring to the current system and not to the proposed system. Some gave answers relating to items that would not be kept on a master file; others gave general answers which related to the proposed system.

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

(c)   This part of the question produced the weakest answers with a quarter of the candidates not attempting it and many gave answers relating to the first transaction file rather than the second.

Question 3

This question was very well answered with the vast majority of candidates gaining over half marks.

(a)   Candidates came up with some very good answers with all candidates making good points.

(b)   This part of the question produced responses which were quite pleasing. Candidates tended to give at least two good points with answers containing breadth and demonstrating knowledge and understanding of the topic.

Question 4

This question was not as well answered with a number of candidates scoring low marks. Candidates fell into two camps with many not seeming to have studied this part of the syllabus. Those that had clearly studied it did very well indeed. A disappointing number of candidates wrote about user documentation rather than either of these aspects of technical documentation. One sixth of the candidature did not attempt the question.

Question 5

Overall this question was very well answered with candidates doing particularly well on part **(a)**.

(a)   Most candidates gained marks for mentioning the use of a laptop computer and word processing package. The use of email was also described by some candidates. Not as many candidates described the inclusion of images from cameras.

(b)   Many candidates gained a mark for mentioning the use of fax but few went beyond this.

Question 6

This question was quite well answered, particularly part **(a)**.

(a)   This part of the question was well answered with most candidates making at least two good points. There were, however, some general answers regarding being easy to use and attractive to look at. As well as this a few candidates missed the point of the question regarding the fact that it referred to a website specifically for online shopping giving answers which related to websites in general.

(b)   This part of the question was not as well answered as expected. Many candidates gained at least two marks but there were a number of answers which just mentioned unemployment in general rather than being specific about individual changes.

Question 7

This question was fairly well answered though most candidates did better on part **(b)** than part **(a)**

(a)   This was reasonably well answered with the majority of candidates able to identify at least one feature. A surprising number, however, did not attempt to make five points with three or four being the norm. Many gave vague answers like 'it will relate the data' or 'there is a relationship between the databases'

(b)   This part of the question was slightly better answered with better candidates scoring quite highly. However, there was a sizeable minority of candidates who did not attempt the question and many did not provide three responses. Vague answers were also provided by some candidates such as 'it saves time', 'you can change information' or 'you can see patterns in the data'.

Question 8

This was fairly well answered but not as well as had been anticipated. Candidates found the two parts to be of equal difficulty.

(a)   A surprising number did not attempt the question. Many candidates failed to give sufficient detail in their answer. Often candidates described the check and which field it applied to but failed to name it. In this way many achieved half marks but no more.

(b)   A number of candidates did not seem to fully appreciate the depth of answer requi
named the three types of data but failed to give examples and state how the system wo
The amendment was frequently omitted by candidates or they gave just a general statement
effect that the validation rule should be checked.

Question 9

A minority of candidates did not identify service and those that did seemed to be unable to describe it adequately often just rewording the phrase. Few referred to the college when describing it but nevertheless the better candidates still managed at least two marks.

Question 10

This question was not well answered with one fifth of the candidates not answering it at all. Many candidates did not write about data manipulation but wrote about how the data could be recorded. A number of candidates just gave a list of software packages which could be used to record the data.

APPLIED ICT

General comments

The majority of candidates attempted all elements of the paper although fewer candidates completed all of the paper than had been found in previous sessions. There were vast differences in the range of results from Centre to Centre and from candidate to candidate within Centres. The paper gave a good spread of marks. Candidate errors were spread evenly over the sections of the paper, although the validation of data in the database and spreadsheet caused a number of candidates some problems.

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

A small number of candidates (fewer than previous sessions) 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. 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

Although this step carried no marks it was essential for candidates' understanding of the forthcoming tasks. Without spending time examining the data in the three source files, it was not possible for candidates to produce successful responses to later steps.

Question 3

This step caused a significant number of candidates a problem. The tables provided in the question paper gave details of some of the required data structures, which all candidates should have been able to create; and partial details for candidates to decide on appropriate field names and data types (using their knowledge from step 2) and apply them to those fields, again using their knowledge from step 2. It was disappointing to discover a significant number of candidates who did not create the branch name field as BranchName (despite the clear instruction) or the Music field with this field name. The data type for the Music and Video fields was occasionally set to Text rather than Boolean despite this being given for Music on the question paper. Where case was specified in the question paper candidates were expected to adhere to this. A significant number of candidates set the Telephone field (erroneously) to Numeric; this should have been a text field as a telephone number is never used to perform calculations. Some candidates created fields with blank field names (as shown in the question paper) ignoring the instruction "Some field names…". Candidates must ensure that they consider the data to be imported rather than assuming that the wizards within the database package will give them the correct results as this is rarely the case. A number of candidates left the original text in place of appropriate field names. The original text was not appropriate as it was far too verbose and contained spaces (which can cause some well-known database packages problems with higher level functionality).

Question 4

This section was not performed well by most candidates. Most generated screen shot evidence of tables, but the majority of candidates did not show the structures of the numeric fields as appropriate. particularly common example of this is in the Employee table, where the focus was in the Payroll_ID field this had frequently been set as the primary key field). In this case 2 marks could be awarded for selecting a numeric field type and having this as an integer sub-type because the Examiner could see this and therefore award these marks. However without a second screen shot of the table showing the same features in the BranchCode field it was possible for the Examiner to award a mark for numeric as this was visible but not possible for the Integer or Long Integer sub-types. Some candidates cropped their screen shots to make the images smaller thereby removing the field properties evidence which would have gained them marks. Some candidates only set a single key field in one of the tables.

Question 5

This was performed really well by most candidates, although a small number only gave the Examiner evidence of the relationship and not the '1 to many' element.

Question 6

Not as many candidates were as successful at step 6 as step 5. This required the candidate to identify the correct fields for the relationship before creating it. Again several candidates did not show the relationship was '1 to many'. Sometimes the relationship was indeterminate when an appropriate key field had not been defined.

Question 7

This was generally performed well, although some relationship types were not shown.

Question 8

The majority of candidates created an appropriate validation rule for this field. The task asked for appropriate validation rather than just the rule. This rule should also include a meaningful error message that would guide the user and explain why their data entry was deemed unsuitable.

Question 9

Many candidates created an appropriate validation rule for this field. The task asked for appropriate validation rather than just the rule; this should also include a meaningful error message that would guide the user and explain why their data entry was deemed unsuitable. The rule itself caused several candidates some problems with common errors including >8 rather than >=8 (and similar errors with the other parameters). Some found the use of the logical operators AND and OR a challenge. There were several creative attempts at different solutions to this question. A few candidates provided no evidence for this task.

Question 10

Most candidates performed this task well. A small number of candidates had solutions or validation messages that did not fit within the dialogue box but did not use multiple screen shots to show the Examiner sufficient evidence.

Question 11

The creation of the table was generally accurate but few candidates included all of the required text with accuracy, many omitting the title.

Question 12

A significant number of candidates completed this for step 8 rather than step 9. The 'Data Chosen' column should have contained only the data that someone would enter into the rule to test; several candidates included lots of other text which changed the examples of normal and extreme data into abnormal. A significant number of candidates did not apply the types of data to be tested as normal, abnormal and extreme. Of those candidates who did, a significant number seemed to have problems selecting appropriate data for the extreme category and, as a follow on, the expected outcomes. The expected outcome is the

results expected before the test is executed, so candidates who placed screen shots in this column had no marks for this. The actual outcome was generally performed well by candidates who had completed other stages. Candidates should actually test their validation using their 'Data chosen' example and report the 'Actual outcome' based on this test. Some of the 'Data chosen' examples had obviously not been tested where testing of Normal data had been reported back as successful using an abnormal data example. Despite instructions to place screen shots of the error message in the table some candidates' inserted text.

Question 13

Most candidates performed the wild card search well.

Question 14

This report was frequently completed well. There were a small number of accuracy errors in the report title. Not all candidates included the specified fields, some having fewer fields than required and several having many more fields. It was pleasing to see a few candidates demonstrating higher level skills by concatenating the Forename and Surname fields to improve the presentation of the report. The grouping was frequently completed well, although a small number of candidates grouped on the wrong fields. The sort was completed as specified by most candidates. The resizing of fields to ensure all details were displayed was not always completed as specified; 'Knightsbridge' was frequently discovered in a truncated form. Branch details were often allowed to be split over the two pages. Very few candidates managed to control pagination so branches were not split across pages.

Question 15

This report was completed correctly by fewer candidates than expected. Most candidates selected only the offices in Spain and Germany, but far fewer included only the branch name and number of sales employees. Several candidates included the names of all the sales employees which were not required. The two field sorting was not completed as well as the searching, and far fewer candidates completed the final step to place the total number of sales personnel at the bottom of the report. This report should have been based upon the original sales report (from step 14) but a significant number of candidates created a new query from the tables rather than 'Using the data extracted in step 14…'.

Question 16

A small number of candidates attempted to generate this chart. Some selected a line graph although the data was not continuous, so this type of chart was not deemed to be appropriate. Most candidates selected some form of a bar chart, although labelling was not completed to a high standard with a significant number of candidates omitting labels. Many of the labels created by candidates were descriptive and fit for purpose. A very small number of candidates labelled with inappropriate font sizes, for example: having a chart title in a font size much smaller than the category and value axis labels or titles. The use of a legend was fine providing this text was not repeated as the value axis title. A significant number of candidates did not select the correct data for the chart. Some candidates inserted their candidate identification details in the footer of the page as instructed; however many positioned these in the header or in the chart area.

Question 17

This question was completed with 100% accuracy by most candidates, although there were a small number of candidates who did not merge the 4 cells and centre align the merged text. The final line on step 17 appeared to have been omitted by a significant number of candidates, setting only 6 rows rather than replicating down to 500 rows of data.

Questions 18 and 19

These questions were completed with 100% accuracy by most candidates. Some had not selected the correct range of cells when taking the screen shots so did not gain full marks.

Question 20

This validation was completed poorly by many candidates. For example, some attempted to apply custom validation rules, but these were not fit-for-purpose. Successful candidates frequently used a list (either within the rule or an external one on the sheet). Few candidates took screenshot evidence of the validation text as well as the application of the rule. A small number of those who attempted the screenshot evidence selected

the data entry message rather than the error message. A significant number of candidates fa[...]e evidence of selecting the correct cells with screenshots frequently showing only one cell or the wh[...] selected.

Question 21

The majority of candidates gained 3 of the four marks for setting the correct data type and rules. The final mark was for the validation text and there was little screenshot evidence of this presented to the Examiners. A significant number of candidates failed to provide evidence of selecting the correct cells with screenshots frequently showing only one cell or the whole column selected.

Question 22

Few candidates were successful with this question as it required more careful consideration than previous validation questions. Many attempted to validate the string length of the text and some did successfully treat the correct responses as strings and place these in a lookup list for the validation rule.

Question 23

This was completed as specified by most candidates.

Question 24

This was completed as specified by almost all candidates who attempted it.

Question 25

This was completed as specified by almost all candidates.

Question 26

There were a significant number of candidates who did not print both the first and last pages. Others printed all the pages and submitted them, with the other pages crossed through as additional sheets. At AS level candidates should be able to select the number of pages and specified pages without wasting resources in this way. Some candidates failed to adjust column widths to ensure all data was displayed in full.

Question 27

Some candidates did not submit any evidence for this question. Successful candidates showed evidence of the selection of 'Female' and of the correct age ranges rather than just printing out the results. There were a number of correct methods used and all gained the correct results. The most common rating was a little more challenging for some candidates. The better candidates who completed this task with few problems used COUNTIF functions and showed both formulae and values views of their selection before identifying the correct answer.

Question 28

This was completed as specified by almost all candidates.

APPLIED ICT

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Paper 9713/31

Written B

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Key Messages

Many candidates did not apply their knowledge to the scenarios and context set in the questions but appeared to know the syllabus content. It is important that candidates must read the scenarios carefully and answer the questions by applying their knowledge to the scenarios.

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

Comments on specific questions

Question 1

(a) This question was about the operation of a satellite navigation device and not about the tracking of objects by GPS. Many candidates confused these two aspects of global positioning and consequently did not score many marks. Many more candidates also incorrectly stated that a 'satnav' device sends signals to a satellite which then calculates the position and uses maps on the satellite to instruct the device. There were a few correct descriptions of the operation of the 'satnav' devices using transmissions from at least four satellites and there were a few good descriptions of how to use a 'satnav' device for finding directions to a location. Centres should ensure that candidates have a good understanding of the way that GPS is used for navigation and the distinction between the use for navigation and for tracking.

(b) Most candidates managed to score some marks here but, again, confusion between tracking and navigation was seen. Good answers include references to the ease of suggesting routes to customers, planning different routes, suggested ETAs, and to drivers becoming too reliant on the devices, signal loss in some areas due to high sided buildings, to drivers not being able to operate the device properly and to subsequent customer dissatisfaction.

Question 2

(a) This question was about the use of intranet by José in the car rental business so answers should relate to how José would use an intranet. Good answers should include references to the enhanced security, privacy of transmitted data such as emails, and the ease of distribution of company documents to employees. This question was answered well by many candidates but too many candidates did not seem to understand the concept of an intranet so were unable to give detailed answers.

(b) This question was well answered by most candidates who could give two features of a WAN but many gave vague answers that showed a lack of understanding of basic network theory. Good answers made reference to the connection of several LANs with routers and the larger geographical area covered by WANs. Vague answers that merely gave the definition as a WAN being a wide area network did not get credit as this was repeating the question.

Question 3

This question was well answered by many candidates who referred to e.g. the high definition video, surround sound, and multiple sources such as MP3 or streaming video. Poor answers merely made reference to watching movies or listening to music with little or no mention of the details of an entertainment Centre.

Question 4

(a)(i)   This question was about the items that would have be put into a website to book a cinema and, as such, required candidates to relate their responses to the scenario. Many candidates managed to answer this question quite well with good explanations of why items would have to be entered. Most candidates explained why the data and time would be needed along with the location of seats but few explained why a name or ID would also be required if tickets were to be collected at the cinema. Very few explained why a credit card would be required when collecting tickets at an automatic kiosk at the cinema.

(ii)   This question asked candidates not to repeat the input items but, despite this being stated in the question, too many candidates did so: most candidates simply described what they would expect to see appearing in confirmation messages and did not concentrate on the extra information that would be found. Good answers described the unique reference numbers, acknowledgement of successful payment or a receipt.

(b)   This question was quite well answered with good answers including the use of padlocks in the browser, the use of HTTPS and having a logon procedure.

(c)   Most candidates described the booking procedure rather than the actual production of the tickets when they are collected or prepared for delivery to the customer. The question required candidates to describe how the system would check the identity of the customer, create and print the tickets and issue a receipt. Most candidates scored a few marks for indicating that the system would eventually print the tickets.

Question 5

This question was about the features of different security methods. A number of candidates confused the terms. Centres must ensure that candidates can distinguish between the different methods of security.

(a)   Most candidates described the use of an encryption key to scramble data so that is meaningless to unauthorised users.

(b)   Many candidates could describe why certificates are used but did not state how the certificates originate. Good answers would describe the issuing of digital certificates by a certificate authority and that the certificates identify the sender and are trusted by both parties.

(c)   Too many candidates did not answer this part of the question well. However, good responses described the use of e.g. user identities and passwords and/or biometric data to authenticate a user. Few candidates gave detailed descriptions of authentication. Centres should ensure that candidates can describe the features of authentication techniques.

Question 6

(a)   Many candidates could explain the difference between primary and secondary research. However, a significant number could not. Candidates should be able to explain that primary research is carried out to obtain original data and that secondary research uses data already collected.

(b)   This question was about how primary research can be carried out. Good answers should explain how research is carried out to obtain first hand data and make reference to e.g. focus groups, interviewing, and the use of ICT to gather data.

(c)(i)   While most candidates scored the mark for a question that should have been a simple question to answer, a number of candidates quoted unsuitable computer systems. Centres should ensure that candidates understand the appropriate uses of different computer systems.

(ii)   Candidates do not appear to understand the use of computer models in scientific research and could not describe their use. Good answers should refer to the use of e.g. formulas, goal seek, and the adjustment of variables to manipulate and analyse data for research purposes.

Question 7

(a) This question was about the collection of information for use in a medical expert system candidates could describe how this would be done but too many described how the expert system would be used by a doctor and not how the information would be collected. Centres must ensure that candidates are trained to read the question and then answer the question as set and not to simply write down all they know about the topic. Good answers described how medical experts would be questioned and how existing data would be examined and "mined" to extract the information required.

(b) This question was well answered by the majority of candidates.

(c) This question was about the output from an expert systems and good answers referred to the output of probabilities and possibilities of diagnoses along with the reasoning behind these from the expert system.

Question 8

When answering this type of question, candidates expecting to score high marks should address all aspects of the question by discussing, in the case of this question, the advantages of choosing an off-the-shelf software package compared to purpose-written software. Good answers should make reference to e.g. lower costs of acquisition and installation, greater availability and more help and guidance available for off-the-shelf packages compared to purpose-written packages.

Question 9

(a) Most candidates understood what the terms meant and could answer some part of this question. However, many candidates failed to score the full three marks because they confused the terms and supplied the wrong description against the stated term.

(b) This should have been a quite easy question to answer but, in fact, proved quite challenging for most candidates.

   (i) and (ii) There were many vague answers given to this question. Centres must ensure that candidates can describe in some detail the benefits and drawbacks of the use of ICT for training staff and that the candidates apply their knowledge to the scenario when they answer the question. For instance, it is unlikely that pharmacy staff would be allowed to e.g. train "from anywhere in the world". Candidates must answer these questions with reference to the scenario to score the marks. References to the lower costs of training as less staff would be required as trainers and no social interaction between trainer and trainee, so in-depth questions by the trainee may not be answered fully are suitable answers to this question.

Question 10

(a) Most candidates knew what a Gantt chart could be used for but the majority of answers were vague and lacked detail. Good answers should refer to e.g. the identification of critical pathways, milestones, and the generation of progress reports.

(b) Many candidates scored a mark for this question but could not provide sufficiently detailed descriptions to score the second mark. A good answer would describe the easier management of the task, the setting up of working in modules so that elements can be tested before final completion of the whole project or the management of resources.

APPLIED ICT

Key Messages

Many candidates did not apply their knowledge to the scenarios and context set in the questions but appeared to know the syllabus content. It is important that candidates must read the scenarios carefully and answer the questions by applying their knowledge to the scenarios.

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

Comments on specific questions

Question 1

(a)   This question was about the operation of a satellite navigation device and not about the tracking of objects by GPS. Many candidates confused these two aspects of global positioning and consequently did not score many marks. Many more candidates also incorrectly stated that a 'satnav' device sends signals to a satellite which then calculates the position and uses maps on the satellite to instruct the device. There were a few correct descriptions of the operation of the 'satnav' devices using transmissions from at least four satellites and there were a few good descriptions of how to use a 'satnav' device for finding directions to a location. Centres should ensure that candidates have a good understanding of the way that GPS is used for navigation and the distinction between the use for navigation and for tracking.

(b)   Most candidates managed to score some marks here but, again, confusion between tracking and navigation was seen. Good answers include references to the ease of suggesting routes to customers, planning different routes, suggested ETAs, and to drivers becoming too reliant on the devices, signal loss in some areas due to high sided buildings, to drivers not being able to operate the device properly and to subsequent customer dissatisfaction.

Question 2

(a)   This question was about the use of intranet by José in the car rental business so answers should relate to how José would use an intranet. Good answers should include references to the enhanced security, privacy of transmitted data such as emails, and the ease of distribution of company documents to employees. This question was answered well by many candidates but too many candidates did not seem to understand the concept of an intranet so were unable to give detailed answers.

(b)   This question was well answered by most candidates who could give two features of a WAN but many gave vague answers that showed a lack of understanding of basic network theory. Good answers made reference to the connection of several LANs with routers and the larger geographical area covered by WANs. Vague answers that merely gave the definition as a WAN being a wide area network did not get credit as this was repeating the question.

Question 3

This question was well answered by many candidates who referred to e.g. the high definition video, surround sound, and multiple sources such as MP3 or streaming video. Poor answers merely made reference to watching movies or listening to music with little or no mention of the details of an entertainment Centre.

Question 4

(a) (i) This question was about the items that would have be put into a website to book a cinema and, as such, required candidates to relate their responses to the scenario. Many candidates managed to answer this question quite well with good explanations of why items would have to be entered. Most candidates explained why the data and time would be needed along with the location of seats but few explained why a name or ID would also be required if tickets were to be collected at the cinema. Very few explained why a credit card would be required when collecting tickets at an automatic kiosk at the cinema.

(ii) This question asked candidates not to repeat the input items but, despite this being stated in the question, too many candidates did so: most candidates simply described what they would expect to see appearing in confirmation messages and did not concentrate on the extra information that would be found. Good answers described the unique reference numbers, acknowledgement of successful payment or a receipt.

(b) This question was quite well answered with good answers including the use of padlocks in the browser, the use of HTTPS and having a logon procedure.

(c) Most candidates described the booking procedure rather than the actual production of the tickets when they are collected or prepared for delivery to the customer. The question required candidates to describe how the system would check the identity of the customer, create and print the tickets and issue a receipt. Most candidates scored a few marks for indicating that the system would eventually print the tickets.

Question 5

This question was about the features of different security methods. A number of candidates confused the terms. Centres must ensure that candidates can distinguish between the different methods of security.

(a) Most candidates described the use of an encryption key to scramble data so that is meaningless to unauthorised users.

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However, many candidates failed to score the full three marks because they confused the terms
and supplied the wrong description against the stated term.

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most candidates.

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the candidates apply their knowledge to the scenario when they answer the question. For
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APPLIED ICT

Paper 9713/33
Written B

Key Messages

Many candidates did not apply their knowledge to the scenarios and context set in the questions but appeared to know the syllabus content. It is important that candidates must read the scenarios carefully and answer the questions by applying their knowledge to the scenarios.

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

Comments on specific questions

Question 1

(a)   This question was about the benefits and drawbacks of different communication methods. Candidates were expected to give a benefit and a drawback of three different methods.

   (i), (ii) and (iii) Most candidates managed to answer this question quite well but there was some repetition of the answers. Candidates must not answer one part of a question with the converse of another part and expect to score the marks. A number of candidates omitted to answer some parts of this question. Good answers should state the benefits/drawbacks of each method such as the greater bandwidth of fibre optic, the lower cost of copper cable, and the increased mobility allowed when using wireless; and the difficulty of repairing or joining fibre optic, the limited distance for a single copper cable length, and the reduced security of using wireless.

(b)   This question was about how data packets are handled by network devices. Candidates were expected to be able to describe what happens to data packets as they pass through different networking devices. A few candidates omitted this question completely.

   (i) and (ii) Most candidates could describe the actions of a firewall but were confused over the details of the actions of a switch. The better answers described the inspection of the contents of the packets and the resulting actions: a firewall would block or allow the onward transmission of the packet depending upon the rules applying to the contents set up within the firewall, a switch would read the destination address of the packet and direct the packet to the appropriate port and no other.

(c)   This question was about the reasons for using a VPN for staff communication. Most candidates explained how the VPN would be used to provide secure, confidential data transfer. However, many candidates confused a VPN with the Internet or a LAN so did not score marks. Again, a few candidates omitted this question completely.

Question 2

(a)   Candidates were expected to state four items, and give reasons why, that would have to be input into a website in order to book a train ticket online. Most candidates could state the items but the reasons given were often lacking in detail. It was not sufficient to list the items without giving a reason in order to score the mark for each: good answers included e.g. the date of travel so that the availability of trains could be looked up, the departure point so that the correct station/platform could be chosen.

(b)   This question was well answered by most candidates who could describe the benefits and drawbacks of online booking.

(c)   This question was about security methods used on websites and candidates we_____
describe the use of e.g. HTTPS to ensure that transmitted data is encrypted, physica_____
protect the servers from manual interference. Good answers stated the methods and des____
detail how they would work or why they were used.

Question 3

Most candidates could describe CAPI, CAWI and CATI as well as some of the other ways that computers
could be used e.g. production of document or questionnaires. The better answers described the method and
the way it would be used.

Question 4

(a)   Most candidates could describe the digital divide.

(b)   Candidates were expected to give more detail than a list of ways for this question. Better answers
gave details of e.g. how low incomes meant that people could not afford the technology, and this
meant that they could not participate in the "e-world". Good answers should go into the detail.
Most candidates could identify the problems associated with a digital divide but could not describe
these in the detail required.

Question 5

(a)   This question was about using computers for teaching and learning. It required candidates to
describe the benefits and drawbacks of using computers in classrooms when teaching school
candidates and/or when used for training purposes. Most candidates were able to answer this
question to some extent but many candidates failed to give sufficient detail to score the marks. As
the question did not specify a particular group of people, answers could have focused on the
candidates, the trainers or the organisation running the courses or a mix of some or all. There was
still a requirement for answers to reflect the scenario. Good answers could have included
references to candidates working at their own pace, being able to repeat the tasks several times,
the reduced costs to the establishment and the tendency for candidates to go off task while using
computers.

(b)   This question was about using computers to help plan or carry out the assessment of candidates
and report on their progress i.e. monitoring candidates' progress. The question proved quite
difficult for most candidates but a significant few managed to describe the various uses of
computers in the monitoring of progress. Good answers could have included generating the tests,
marking the tests and generating reports that could be emailed to parents to report on progress.

(c)   This question was answered well by most candidates who appeared to be quite conversant with
anti-social ways of using computers.

Question 6

(a) (i)   Surprisingly, this question proved quite difficult for many candidates when all that was required was
the naming of any official document that would properly identify the individual.

(ii)   Again, some candidates found this question difficult. Centres should ensure that their candidates
are aware of the advantages (as well as the disadvantages) of governments having and using
facilities for their citizens to make personal applications online.

(b)   This question was about the fears that people have about the fraud that may be associated with
online applications.

Question 7

(a)   This question required candidates to identify the financial information that must be entered when
making online tax returns. Most candidates answered this question quite well but some found it
difficult to name, or give examples from, the three items required: income, allowances, and
expenses.

(b)   This question was about the methods of paying taxes online. Governments are l̶
direct transfer of funds from bank accounts, the use of debit or credit cards or a transac̶
for tax payments online: a significant number of candidates were not able to state this and̶
payment methods specifically used for making purchases of goods online.

Question 8

This question required candidates to demonstrate their knowledge of the methods used to broadcast
television programmes to the public.

(a)   Most candidates did not give sufficient detail in the description. Terrestrial television programmes,
whether broadcast in analogue or digital format, are created in a studio and distributed to
transmitting stations across the country to be sent out (transmitted) from masts as radio waves.
The waves are received by aerials pointing at the transmitting mast. Candidates should be aware
of the whole process in broadcasting TV programmes.

(b)   This question was about how satellite television works. Descriptions of the systems were good
with some detail seen in many answers. However, there were too many answers that merely
stated that the signals went up to a satellite and were sent back. At this level, candidates are
expected to be able to describe the processes involved in distributing television signals via
satellites in detail including references to encoding if digital is used, use of transponders and
decoding in set top boxes.

(c)   This question asked for the reasons why a satellite television service might be preferable to
terrestrial television. Many candidates could give brief answers to this question but, at this level,
there should be detail in the explanations e.g. there is no need to build multiple transmitters across
the country so there is no need for expensive distribution networks to each transmitter or to arrange
for different channels to be used to avoid signal interference between transmitters.

APPLIED ICT

| Paper 9713/04 |
| Practical Test B |

General comments

It seemed that many candidates were not well prepared for this session and many lacked the skills and experience to form solutions to problems with a level of difficulty no greater than those set in previous papers.

There were no issues that were specific to the poor performance by candidates and it may be that many were simply entered for the examination too early on in their studies.

Comments on specific questions

Task 1 – correct data for creation of a relational database

In the first task candidates were required to determine duplicate codes that prevented the setting of the VCode field as the primary key in two files. This was successfully completed by almost all candidates but after discovering the duplicated codes many candidates simply deleted one record in each file. Since the records used the same VCode for two different venues this meant the data was incomplete. It was, however, pleasing to note that most candidates who realised the need to create a different code for the second venue also recognised that a 4 character code would be appropriate since normal good practice would be to set a validation rule on this field even though this was not required in the task.

Candidates were then required to provide evidence of the relationships created. Once again candidates from some Centres provided screenshots of the import steps and the design view of each table. This was not required and may have cost some candidates marks by reducing the time they had available to complete the paper. In this case a single screenshot of the relationships diagram was sufficient to display the primary keys used and the relationships created.

Centres might bear in mind that when teaching using past papers that the form of solutions and the evidence required will not always be repeated in subsequent examinations.

Task 2 – Selection of data and creation of a chart

In the second task, candidates were required to select data to create a chart displaying the number of bookings for each region. The chart type and format was not specified. For the type of data to be used, and the information required, a simple vertical bar chart was the correct choice. This task was generally completed well and most candidates chose this option.

Task 3 – Produce a report based upon data selected by parameter query.

A study of the published marks breakdown for this task will reveal that the efficiency of the solution was a factor in the award of marks. Consideration of the task requirements led the more successful candidates to carefully select the tables and fields needed for the data to be included in the report. A number of candidates included unnecessary fields in the selection and subsequently excluded them from the report. Whilst this can yield the correct results, it does not demonstrate an appropriate level of expertise and Centres might gain advantage from considering this issue when teaching these techniques.

Once again many candidates failed to remember that at A2 Level, the examination requires them to simulate a business scenario and they are tasked with creating a system for non-expert users. Solutions to this task required a parameter query with a prompt to input the name of the Regional Manager whose list of regional bookings was to be listed. This prompt should make it clear to the user what information was needed in their response. Interestingly, a few candidates who recognised this requirement used two parameters and

prompted for both the manager's Forename and Surname. This is not a sensible option; not le[...] it provides two opportunities for input errors.

In general, those candidates who produced a report did so well and completed the grouping, sortin[...] formatting requirements accurately. A number failed to include the "count" of bookings however, an[...] appeared that some candidates were not able to edit a report and worked only within the constraints of th[...] application "Wizard".

Task 4 – Export the report to a Word Processing application and reformat

Almost all candidates who successfully produced a report managed to export the data to a word processed document. The only issue worth noting is that the opening rubric of the paper states," All documents published must be of a professional standard and suit the business context". Very few candidates fulfilled this requirement. Centres would profit by stressing this in preparation assessments.

Task 5 – Select data for a mail merge using a template document

Selection of the data for inclusion and exclusion was done well by most candidates who attempted this task. As before, however, the efficiency of the solution was a factor in the awarding of marks. A number of candidates only filtered the data in the word processing application and whilst marks could be awarded for the application of the correct criteria and valid results, this was not an efficient solution.

Few candidates failed to show the conditional field as a mergefield, but those who could only manage to display the evidence as a screenshot lost marks. This is a recurrent issue with this paper and some Centres would benefit from covering the display and print options of word processing applications in more detail.

Whilst most candidates clearly understood the syntax and format of conditional fields, some made mistakes with the logic. Obviously this resulted in incorrect data. Simple "proofing" of the results against the data would have enabled correction before printing.

Task 6 – Create, edit and annotate a macro to automate formatting before final printout and produce the merged documents

The macro required was created successfully by candidates who carried out the mail merge successfully but very few managed to annotate the individual sections as required. Some exported the text to a word processing application and inserted comments or text, but this is not an acceptable solution. It is reasonable to expect candidates working at A2 Level to have the skills necessary to annotate a macro and present documented code for others to follow and amend or augment.

Most candidates performed the mail merge successfully but many failed to "proof" the documents for layout or formatting errors and provided letters that were not "fit for purpose". It is worth Centres noting that within a business scenario a number of marks are attributed to criteria that reflect this aspect of a solution.

In conclusion

For this session apart from a number of candidates appearing to be ill prepared, the main issues for Centres to bear in mind seem to be the need for candidates to be made aware of:

- the importance of efficient solutions, particularly with respect to the selection of data
- the need to "proof" outcomes
- the production of documents that could be considered as 'fit' for a business purpose.