## APPLIED ICT

## Paper 9713/11

Written A

## Key Messages

Overall, candidates appeared to have been well prepared for this assessment.
Candidates showed a reasonable 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 the analysis and design phases of the systems life cycle.

Fewer candidates appeared to have rote-learned answers from previous years' mark schemes. Rotelearning mark schemes is strongly advised against, as although questions might cover a similar topic, the questions themselves might change considerably. This was particularly the case with Question 4a. 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. A number of candidates gave the features of a data flow diagram instead of a systems flowchart.

Centres are again reminded that this is 'Applied ICT' and candidates are expected to apply their knowledge to the context of the scenario. It is important for candidates to realise that they need to refer back to the scenario when answering questions. This was particularly the case with Question 1 where a number of candidates seemed to ignore the scenario and wrote generic answers.

Overall, however, marks were distributed quite well throughout the paper with better ability candidates being able to score well on the paper though weaker candidates did not do quite as well as in the past. All questions appeared to differentiate well.

## Comments on specific questions

## Question 1

Candidates did fairly well on this question. Even weaker candidates managed at least one or two marks with the stronger candidates achieving four or more.

Candidates did well when describing the use but tended to struggle when it came to giving an advantage. Many ignored the question's requirement to compare it with non-electronic methods.

A number of candidates gave simple, generic answers when asked to give the use instead of writing what use Jasbinder would put it to.

## Question 2

Many candidates did quite well in this question. Candidates found both parts to be of equal difficulty.
(a) A number of candidates described the need for PINs from a security point of view. Many, however, had studied the topic well and scored well when describing how a phone conference is set up using PINs.
(b) Again, candidates did quite well on this question. Those that did not tended to be candidates who did not go into sufficient detail, giving superficial answers.

## Question 3

This question was answered quite well with more able candidates performing very well, particularly in part (a)
(a) The large majority of candidates did very well on this question, although a number thought the answer was service despite the wording of the question.
(b) The vast majority of candidates gave at least one good advantage with many giving two or more. A surprising number gave very simple answers such as cheaper or more attractive. Some even claimed it was 'faster'.
(c) Candidates appeared to be happier describing the disadvantages rather than the advantages. Most achieved more marks on this part than part (b). A number, however, seemed to think it would be more expensive than producing a web site with little reasoning and despite giving the opposite point of view for part (b).

## Question 4

Candidates, generally, did not perform well on this question with few candidates gaining over half marks. An interesting feature of the candidates' responses was that a sizeable number of candidates failed to answer parts of the question but few failed to attempt all parts.
(a) Many candidates confused a systems flowchart with a DFD. Many responded with answers which gave the component parts of a DFD and so were unable to score highly. Some candidates ignored the question and failed to use examples from the scenario.
(b) This part was, again, not well answered, with many candidates giving incomplete answers. Candidates did slightly better on this part compared with part (a) with higher ability candidates producing particularly better answers for this part than they did for part (a).
(c) This was better answered than the other two parts with many candidates gaining a mark for mentioning it was designed specifically for the task. Few gave any other mark points.

## Question 5

This question was not answered as well as had been hoped with candidates performing better on part (c) than on parts (a) and (b). Again, quite a number of candidates failed to answer parts of the question but few failed to attempt all parts.
(a) This question was not as well answered as expected. Many candidates gave general factors which might influence the design rather than the features of the form itself. A worrying number ignored the paper-based aspect of the question and described the use of an input screen. A number of candidates described each field that would be on the field rather than the actual features.
(b) Some candidates answered this as though it was a comparison of hard copy with a presentation or website and therefore gave very general answers. A disappointing number gave features which would be in both types of form.
(c) Candidates coped with this part better than the other two parts. More candidates seem to be familiar with relational databases than has been the case in the past.

## Question 6

This question was answered reasonably well with the majority of candidates doing better on part (c) than parts (a), (b) and (d).
(a) Most candidates seemed to know what type of equipment was required by an operator but failed to describe its use. A surprising number of candidates do not seem to realise that call centre operators use headsets for communication.
(b) Those that did attempt the question did quite well with many candidates picking up at least two marks. Some candidates, however, did not seem to recognise the terms and gave answers about a variety of aspects of call centres without answering the question properly. A sizeable number of
candidates failed to attempt this question. Some failed to attempt part i but even then, a sizeable number of those candidates who did attempt part i did not attempt part ii.
(c) Candidates did fairly well on this question with many getting two or more marks. However, a number of candidates did not fully answer the question and instead just described the problems without giving a method of prevention. Other candidates were guilty of ignoring the requirement for different methods of prevention and repeated their answer throughout. This mainly involved the repetition of taking regular breaks.

## Question 7

This question was not answered well with the majority of candidates doing better on part (b).
(a) Few candidates did well on this part. There appearing to be little understanding of the topic. Many candidates wrote about computer-assisted learning or computer aided instruction. Those that based their answers on assessment sometimes failed to answer the question which required answers relating to how ICT would be used to carry out the assessment.
(b) Candidates seemed to do better on this part of the question with many understanding what an ordered sequential file is, though not necessarily thoroughly understanding the differences between the two types of file.
(c) Candidates appeared to be able to give at least one advantage with lack of speed of retrieving data being the most popular. More able candidates were often able to describe at least two. A number of candidates did not attempt this question.
(d) Very few candidates gave the correct answer to this question.

## Question 8

This question was quite well answered, with the vast majority of candidates achieving at least one mark. A number of candidates gave answers to the description part which failed to include reference to the immediacy of the changeover but were still able to gain marks for at least one advantage.

## Question 9

This question was answered quite well with the majority of candidates doing better on part (a) than part (b).
(a) Candidates did quite well on this part with many gaining at least one mark. Where marks were lost, it was due to giving a general description of what technical documentation is rather than why it is needed. A number of candidates did not attempt this question.
(b) Most candidates gained at least one mark with more able candidates usually giving three or more good answers. Surprisingly, a greater number than in part (a) failed to attempt this part of the question and a further number gave fewer answers than required by the question.

## APPLIED ICT

Paper 9713/12
Written A

## Key Messages

Overall, candidates appeared to have been well prepared for this assessment.
Candidates showed a reasonable 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 the analysis and design phases of the systems life cycle.

Fewer candidates appeared to have rote-learned answers from previous years' mark schemes. Rotelearning mark schemes is strongly advised against, as although questions might cover a similar topic, the questions themselves might change considerably. This was particularly the case with Question 4a. 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. A number of candidates gave the features of a data flow diagram instead of a systems flowchart.

Centres are again reminded that this is 'Applied ICT' and candidates are expected to apply their knowledge to the context of the scenario. It is important for candidates to realise that they need to refer back to the scenario when answering questions. This was particularly the case with Question 1 where a number of candidates seemed to ignore the scenario and wrote generic answers.

Overall, however, marks were distributed quite well throughout the paper with better ability candidates being able to score well on the paper though weaker candidates did not do quite as well as in the past. All questions appeared to differentiate well.

## Comments on specific questions

## Question 1

Candidates did fairly well on this question. Even weaker candidates managed at least one or two marks with the stronger candidates achieving four or more.

Candidates did well when describing the use but tended to struggle when it came to giving an advantage. Many ignored the question's requirement to compare it with non-electronic methods.

A number of candidates gave simple, generic answers when asked to give the use instead of writing what use Jasbinder would put it to.

## Question 2

Many candidates did quite well in this question. Candidates found both parts to be of equal difficulty.
(a) A number of candidates described the need for PINs from a security point of view. Many, however, had studied the topic well and scored well when describing how a phone conference is set up using PINs.
(b) Again, candidates did quite well on this question. Those that did not tended to be candidates who did not go into sufficient detail, giving superficial answers.

## Question 3

This question was answered quite well with more able candidates performing very well, particularly in part (a)
(a) The large majority of candidates did very well on this question, although a number thought the answer was service despite the wording of the question.
(b) The vast majority of candidates gave at least one good advantage with many giving two or more. A surprising number gave very simple answers such as cheaper or more attractive. Some even claimed it was 'faster'.
(c) Candidates appeared to be happier describing the disadvantages rather than the advantages. Most achieved more marks on this part than part (b). A number, however, seemed to think it would be more expensive than producing a web site with little reasoning and despite giving the opposite point of view for part (b).

## Question 4

Candidates, generally, did not perform well on this question with few candidates gaining over half marks. An interesting feature of the candidates' responses was that a sizeable number of candidates failed to answer parts of the question but few failed to attempt all parts.
(a) Many candidates confused a systems flowchart with a DFD. Many responded with answers which gave the component parts of a DFD and so were unable to score highly. Some candidates ignored the question and failed to use examples from the scenario.
(b) This part was, again, not well answered, with many candidates giving incomplete answers. Candidates did slightly better on this part compared with part (a) with higher ability candidates producing particularly better answers for this part than they did for part (a).
(c) This was better answered than the other two parts with many candidates gaining a mark for mentioning it was designed specifically for the task. Few gave any other mark points.

## Question 5

This question was not answered as well as had been hoped with candidates performing better on part (c) than on parts (a) and (b). Again, quite a number of candidates failed to answer parts of the question but few failed to attempt all parts.
(a) This question was not as well answered as expected. Many candidates gave general factors which might influence the design rather than the features of the form itself. A worrying number ignored the paper-based aspect of the question and described the use of an input screen. A number of candidates described each field that would be on the field rather than the actual features.
(b) Some candidates answered this as though it was a comparison of hard copy with a presentation or website and therefore gave very general answers. A disappointing number gave features which would be in both types of form.
(c) Candidates coped with this part better than the other two parts. More candidates seem to be familiar with relational databases than has been the case in the past.

## Question 6

This question was answered reasonably well with the majority of candidates doing better on part (c) than parts (a), (b) and (d).
(a) Most candidates seemed to know what type of equipment was required by an operator but failed to describe its use. A surprising number of candidates do not seem to realise that call centre operators use headsets for communication.
(b) Those that did attempt the question did quite well with many candidates picking up at least two marks. Some candidates, however, did not seem to recognise the terms and gave answers about a variety of aspects of call centres without answering the question properly. A sizeable number of

International Examinations
candidates failed to attempt this question. Some failed to attempt part i but even then, a sizeable number of those candidates who did attempt part $\mathbf{i}$ did not attempt part ii.
(c) Candidates did fairly well on this question with many getting two or more marks. However, a number of candidates did not fully answer the question and instead just described the problems without giving a method of prevention. Other candidates were guilty of ignoring the requirement for different methods of prevention and repeated their answer throughout. This mainly involved the repetition of taking regular breaks.

## Question 7

This question was not answered well with the majority of candidates doing better on part (b).
(a) Few candidates did well on this part. There appearing to be little understanding of the topic. Many candidates wrote about computer-assisted learning or computer aided instruction. Those that based their answers on assessment sometimes failed to answer the question which required answers relating to how ICT would be used to carry out the assessment.
(b) Candidates seemed to do better on this part of the question with many understanding what an ordered sequential file is, though not necessarily thoroughly understanding the differences between the two types of file.
(c) Candidates appeared to be able to give at least one advantage with lack of speed of retrieving data being the most popular. More able candidates were often able to describe at least two. A number of candidates did not attempt this question.
(d) Very few candidates gave the correct answer to this question.

## Question 8

This question was quite well answered, with the vast majority of candidates achieving at least one mark. A number of candidates gave answers to the description part which failed to include reference to the immediacy of the changeover but were still able to gain marks for at least one advantage.

## Question 9

This question was answered quite well with the majority of candidates doing better on part (a) than part (b).
(a) Candidates did quite well on this part with many gaining at least one mark. Where marks were lost, it was due to giving a general description of what technical documentation is rather than why it is needed. A number of candidates did not attempt this question.
(b) Most candidates gained at least one mark with more able candidates usually giving three or more good answers. Surprisingly, a greater number than in part (a) failed to attempt this part of the question and a further number gave fewer answers than required by the question.

## APPLIED ICT

## Paper 9713/13

Written A

## Key Messages

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

Candidates showed a good 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 the compressed hours, time management software and the indexed sequential method of storing data.

Fewer candidates appeared to have rote-learned answers from previous years' mark schemes. This is strongly advised against as, although questions might cover a similar topic, the questions themselves might change considerably. This was particularly the case with question 3. 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.

Centres are again 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. Again, this was particularly the case with question 3 where a number of candidates seemed to ignore the scenario and wrote generic answers.

Overall, however, marks were distributed quite well throughout the paper with better ability candidates being able to score well on the paper and weaker candidates able to score well on certain questions. All questions appeared to differentiate well.

## Comments on specific questions

## Question 1

This question was not answered as well as had been hoped though candidates performed better on part (a) than on parts (b) and (c).
(a) Candidates found this a tricky question, although the stronger candidates managed to make at least one valid point. Many seemed to think it was the same as working flexible hours.
(b) This was also not well answered. Many seemed to think the workers would work fewer hours and some even thought working compressed hours enabled the workers to go part-time.
(c) Candidates seemed to ignore the scenario and wrote down previous mark scheme points about allowing the 'shop' to be open longer when the scenario was referring to programmers working in an office. Some seemed to think that Pietr would be paying lower wages.

## Question 2

This question was answered quite well with candidates performing better on part (a) compared with part (b).
(a) This was well answered with the majority of candidates making at least one good point with the more able candidates making at least two. Where candidates failed to achieve marks it was generally because they gave general time management software features rather than concentrating on calendars and organising meetings.
(b) Candidates did not do quite as well on this question. The question required a detailed description whereas many tended to give superficial answers. However, many candidates made at least one good point with the more able candidates making two or three. Popular answers related to Gantt charts, critical path analysis and the stopwatch feature.

## Question 3

This question was answered quite well with candidates performing very well, particularly part (a)
(a) Candidates did well, with the weaker candidates making at least one good point. There were, however, a number of simple answers like 'saves time' without expansion. Many candidates ignored the scenario, which stated that both programmers and directors were based in the same town, and gave answers regarding plane travel.
(b) A number of candidates again ignored the scenario often referring to time zone differences and also ignoring the fact that video-conferencing was already in place in the company.

## Question 4

Candidates, generally, performed well on this question with many candidates achieving over half marks. Candidates did much better on part (c) than on the other parts.
(a) Many candidates did not perform well on this part. Most candidates made at least one good point regarding the research that Pietr would have carried out but failed to concentrate on the requirements aspect of the question.
(b) A number of candidates concentrated on what would be in the form instead of the factors that would influence the design of the form. Those candidates who did gain marks gave answers such as ease of use and considering who would use it but few alternative answers were given.
(c) This was much better answered than the previous two parts with the vast majority getting at least half marks.
(d) This was not very well answered with only the more able candidates making two or more points. Many candidates concentrated on how a system is tested rather than how it is evaluated.

## Question 5

This question was quite well answered with candidates performing better on part (a) than on part (b).
(a) This question was generally well answered. The majority of candidates made at least one good point with many candidates giving two and the higher ability candidates frequently achieved all three marks. A common mistake, however, was to answer from the point of view of the journalist rather than the editor with candidates mentioning the typing up of stories rather than editing those received from the journalists.
(b) This was not as well answered, with many candidates writing general descriptions which were basically re-wording the phrases used in the scenario.

## Question 6

This question was answered well with the majority of candidates making at least two good points with many making three or more good points.

## Question 7

Candidates did not do as well on this question. Many did not seem to have much knowledge of the indexed sequential method. Most did much better on part (c) with many gaining at least two marks.
(a) Few candidates did well on this part. There seemed to be little understanding of the topic. A number of candidates did not attempt the question and, of those that did, some made fewer than the four responses required. Many candidates wrote simplistic answers such as 'it is neat and tidy', 'it is well-organised' and other answers in this vein.
(b) Candidates answered poorly on this part of the question with many not using examples to illustrate their answer.
(c) Candidates performed a lot better on this part of the question with many making two or more, good points. The description of the validation check caused few problems but the reasons why inaccurate data might still be entered were often vague.

## Question 8

This question was answered well with the majority of candidates doing better on part (b) than parts (a) and (c).
(a) Candidates did well on this part with many candidates making at least two good points. Where candidates lost marks it was sometimes due to writing about no wages need to be paid to workers rather than less money spent on wages because of fewer workers. This also applied to fewer premises rather than none.
(b) Candidates did very well on this part of the question. The only problem seemed to be that the less able candidates ignored the fact that the question stressed that security issues should not be referred to in the drawbacks.
(c) Whilst not doing as well on this part as part (b) candidates still gained marks with many achieving at least half marks.

## APPLIED ICT

Paper 9713/02
Practical Test A

## Key Messages

The majority of candidates attempted and completed all elements of the paper. There were significant differences in the range of results from Centre to Centre and from candidate to candidate within Centres. The paper gave a good spread of marks. Candidate errors were more prevalent in the test table and a significant number of candidates found the short presentation on the production of a single document challenging. A significant number of candidates omitted this section.

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

A small number of candidates submitted multiple printouts for some of the tasks and did not cross out those printouts that were draft copies. Where multiple printouts are submitted, Examiners will only mark the first occurrence of each page.

The word processing tasks gave some problems for candidates. While many demonstrated sound practical skills in the test tables, some candidates did not achieve many marks on the application of their knowledge and understanding. A significant number of candidates' copied text directly from a variety of internet sources for the presentation question and submitted this as their own work. Examiners will give no credit for sections of text copied and pasted from the internet; however in the context of the presentation it was acceptable to paraphrase elements of the text. 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 almost all candidates imported the data files into the database in step 3, not all of them planned the design of their tables, field names, relationships and data types. There were a wide range of errors found in responses to this question, many because candidates appeared to rush into providing an answer rather than following the instruction to "Carefully examine the data in the files:...". Examination of this data gave candidates clues to what was needed to create the various spreadsheet elements required for this paper.

## Question 3

This question was completed well by most candidates.

## Question 4

This question was completed well by most candidates, however, despite this being a relatively straightforward task requiring fundamental copy typing skills a significant number of candidates were unable to duplicate the case or spacing in this text. The vast majority of attempts were placed in the header.

## Question 5

This question was completed well by most candidates; however, there were a number of candidates who did not use a single relative cell reference for the lookup reference. Most candidates used the correct cell range within the external file reference, some erroneously included row 1 in the range.

## Question 6

This question was completed well by most candidates; again, however, there were a number of candidates who did not use a single relative cell reference for the lookup reference. Most candidates used the correct cell range within the external file reference, some erroneously included row 1 in the range.

## Question 7

Almost all candidates who printed evidence of this completed the replication with $100 \%$ accuracy.

## Question 8

Most elements of this question were completed well; the most significant error was where candidates had mixed up serif and sans-serif font styles.

## Question 9

This instruction was not completed by a number of candidates.

## Question 10

Most candidates hid both columns as specified.

## Question 11

Few candidates followed the instruction to print only the top and bottom pages of the spreadsheet, the vast majority of candidates printed all pages to show the formulae used.

## Question 12

This question was completed well by most candidates.

## Question 13

This question was not completed well by a significant number of candidates. Many searched for one of the two criteria, some searched for both and did not include these as wildcard searches and some candidates completed it with accuracy.

## Question 14

This question was completed well by most candidates, although some candidates printed on more than one page or did not resize column widths so that all data and labels were fully visible.

## Question 15

This question was completed well by most candidates.

## Question 16

This question was completed well by most candidates.

## Question 17

Responses to this question were frequently inaccurate in the required data entry. Most candidates merged the correct cells and centre aligned the contents, but a number of candidates did not set this text into a serif font.

# Cambridge International Advanced Subsidiary Level and Advanced Level 9713 Applied ICT November 2013 <br> Principal Examiner Report for Teachers 

## Question 18

This question was completed well by most candidates.

## Question 19

The date was frequently placed in the correct cell, but the choice of criteria for the validation rule was often incorrect. Candidates had to recognise that the cell contained date information and therefore the validation rule must refer to full dates rather than just years. Screen shot evidence was frequently entered into the evidence document but was sometimes cropped so that the Examiner could not see which cell this validation rule related to.

## Question 20

Most candidates produced a test table with 9 rows and 4 columns; of these, the majority merged the correct cells but few copied the cell alignment or the italics used in the correct cells of rows 1 and 2. Many candidates tested their validation rules using appropriate data, but there was evidence that some candidates did not show their understanding of the difference between normal, abnormal and extreme data. Some used erroneous test data like 2010 (as normal data) after setting the validation rule to between $1^{\text {st }}$ January 2010 and $31^{\text {st }}$ December 2040.

## Question 21

This question was completed well by most candidates, although a small number placed screen shot evidence for the expected outcome rather than for the actual outcome.

## Question 22

This question was completed well by most candidates.

## Question 23

Most candidates used a DATE function to complete this question with the vast majority achieving full marks. A small number of candidates used incorrect cell references within this function.

## Question 24

Many candidates found this a challenging question, yet a simple subtraction between the absolute date set in cell K 2 and the relative reference to the date stored in column K was all that was required.

## Question 25

Few candidates used a ROUND function as part of this formula. Some chose variants of the ROUND function like ROUNDUP and ROUNDDOWN whilst others used the INT function. Within this was a nested YEARFRAC function or a suitable alternative offered by many candidates was a relative reference to the cell L5 divided by the number of days in a year. A significant number of candidates did not score full marks on this question.

## Question 26

This question was completed well by many candidates, although some were looking for a far more complex solution to this question than was required.

## Question 27

This question was completed well by most candidates.

## Question 28

The replication was completed as instructed by most candidates.

## Question 29

A significant number of candidates ignored the instruction to place the formula in cell O48 and placed this in cell 047 . Other candidates did not sum only the required range of cells.

## Question 30

This question appeared to have been omitted by a number of candidates, or the candidates did not provide evidence of this function in their formulae printout.

## Question 31

Each candidate had to identify appropriate formatting for each cell in the spreadsheet that should be currency. Errors were found in both the selection of the correct cells for the formatting and in setting this into dollars with 2 decimal places.

## Question 32

This question was completed well by most candidates.

## Question 33

This question was completed well by many candidates. The most significant error was the failure to fully display the contents of all cells in order to enable the Examiner to give credit for the formulae and functions used. A significant number of candidates did not show row and column headings.

## Question 34

This question was completed well by many candidates.

## Question 35

This question was completed well by most candidates, although a number of candidates did not fit their printout on a single page whilst displaying all the required data and labels. Some candidates did not display the row and column headings.

## Question 36

Few candidates managed to successfully complete this task producing the three printouts showing the different modelled values with identical layout. A significant number of candidates changed the layout of the page between printouts.

## Question 37

The layout and use of the master slide by candidates was generally sound with many achieving 4 or 5 marks for this element. Few explained how to create a single document. There were many candidate responses which contained answers from previous mark schemes (although unrelated to this question) and even more candidates who had copied directly from the internet or the word processing packages online help. Many candidates repeated the same marking point a number of times (like using tracked changes) but did not consider other possible solutions.

## Question 38

This question was completed well by almost all candidates.

## Question 39

This question was completed well by almost all candidates.

## Key Messages

A number of candidates did not attempt to answer all of the questions and consequently lost the opportunity to score all the marks available. Further, a number of candidates wrote their responses outside of the designated spaces for the questions and Centres are reminded to advise candidates that this may cause problems with the on-screen marking of their papers. Centres are strongly reminded to advise their candidates that any answers written outside of the designated spaces should be clearly cross-referenced by the candidate so the examiner can easily find the answer. There were too many instances of responses written in the blank spaces and not referenced and which could have therefore been missed by examiners.

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

Further, candidates must read the question carefully before attempting to answer it; it was apparent that candidates were not answering the question as set on the question paper but merely writing down information about a topic.

However, it was apparent from the many superficial answers seen by examiners, that some candidates did not know the syllabus content in enough depth.

## Comments on specific questions

## Question 1

(a) (i) This question was about the benefits of the use of CAD and not merely about the features of CAD that could be used. To score marks, candidates were required to describe how the features of CAD are of benefit during the designing of the farm tools. Many candidates did not score marks because, while they could describe the features, they failed to describe how these were of benefit. Too many candidates also described the manufacturing process, which was not required by the question, so failed to answer the question. Good answers briefly mentioned the feature and then described how this was of benefit.
(ii) This should have been an easy question at this level but too many candidates did not distinguish between input and output devices, and many of those that did distinguish, then failed to appreciate that the question required them to write about a specialist device. Answers that listed generic devices e.g. mouse or screen, were not given credit. Good answers included graphics tablets, light pens and plotters or high resolution screens.
(b) This question was not well answered by most candidates. The question required candidates to describe the ways that project management software would be used. Many candidates did not write more than a simple list without any descriptions - these were not given credit. Good answers could have included e.g. event chain diagrams for visualising multiple events, the use of alarms to warn managers or directors of stages not being completed on time.

## Question 2

(a) (i) Most candidates knew what VoIP meant and scored at least one mark for this question. However, a number of candidates did not fully describe the name and did not score that mark. It was pleasing to see that many candidates could write full descriptions and score both marks.

# Cambridge International Advanced Subsidiary Level and Advanced Level <br> 9713 Applied ICT November 2013 <br> Principal Examiner Report for Teachers 

(ii) Many candidates scored good marks for this question with answers that gave good descriptions of the features.
(b) This question was about how video-conferencing enables group meetings to occur, so candidates were required to describe how it works rather than how to connect and use it. Most candidates failed to score marks because they described the meeting and how video-conferencing was used. Good answers included descriptions of the use of codecs, video and audio compression, noise cancelling, streaming of data packets etc. that enable the video-conference to take place.
(c) This question required candidates to write about recent developments that have allowed or caused an increase in the use of video-conferencing. Good answers included references to increases in travel costs, increased risks of international travel, the increase in available bandwidth and its reduced costs. Credit was not given for statements that did not refer to a recent development e.g. the invention of the Internet was not given credit.

## Question 3

Many candidates mixed up their answers to questions (a) and (b). Credit was not given for answers that appeared in the wrong place e.g. part (a) was about the automatic capture and not about the analysis of the data; candidates who wrote about the automatic restocking by the system were not answering part (a).
(a) Many candidates could describe the use of barcodes and RFID tags to collect data automatically, but a number of candidates described the manual input of codes using a keypad and thus failed to score the marks.
(b) This question required candidates to describe the processing that occurs in automatic stock control systems and should be well understood by candidates. However, the majority of answers were superficial and did not describe the process properly. While good answers referred to the automatic capture of the data from e.g. barcodes and its cross referencing to fields in a database, the use of pre-set stock re-order levels and the automatic sending of orders or emails to acquire more stock, too many candidates did not give sufficient detail in their answers. Poor answers such as "when stock arrives it is added to the database" or "when stock is taken out it is removed from the database" will not be given any credit.

Candidates were required to indicate the fields that would be affected during the process: this instruction was included in the question to prompt candidates to refer to the fields in the database but too many did not do this. Good answers referred to fields holding the barcode, the product ID, the number in stock and the pre-set re-order level and how this would be used.

## Question 4

This question proved disappointingly difficult to many candidates. Candidates were required to explain the use on the company network of a number of network devices or systems. Many candidates merely described the item without giving a suitable use so failed to score the full marks.
(a) Good answers referred to the storage of files and to remote access to files.
(b) Good answers referred to the connecting of LANS and Wans and to the use of IP packets to direct data to e.g. the correct employee.
(c) Good answers referred to the network card being the interface between the network cable and the computer and its role on preparing and receiving network traffic. However, many candidates merely described how and where it was fitted.
(d) Good answers referred to the provision of Wi-Fi by the wireless access point and the use by staff for connecting to the company network with mobile devices.
(e) Good answers referred to the secure exchange of company data and the enabling of remote access by staff.

## Question 5

Most candidates achieved the marks for identifying the protocols and many could explain a function of each protocol on the company network.

## Question 6

Many candidates mixed up their answers for parts (a) and (b) and wrote about the analysis of the data in part (a) and then repeated some of this in part (b). Credit was not given for answers that appeared in the wrong place e.g. part (a) was about using ICT to automatically capture weather data and not about the analysis of the data; candidates who wrote about the analysis and presentation of weather data were not answering part (a).
(a) This question was about the automatic collection of weather data. Good answers referred to weather balloons and weather satellites with sensors to collect weather data, the required conversion of analogue data into digital formats, and the descriptions of these.
(b) This question was about the analysis and presentation of weather data. Good answers referred to the use of appropriate software to analyse the weather data, the production of graphs and tables to present the data and to show trends, and the use of animations to display the data to an audience on e.g. television.

## Question 7

(a) Candidates were required to describe how television programmes from a television station are sent to a viewer's TV set via a satellite. Descriptions of terrestrial or cable TV transmission were not given credit.

Good answers included descriptions of the uplink, reception by the orbiting satellite, use of a different frequency for transmission back to earth, reception at a domestic satellite dish and the use of an LNB with a cable downlink to a domestic satellite receiver.
(b) This question was not well answered. Most candidates referred to the possibility of non-payment for a channel that requires a subscription but failed to supply sufficient detail for the full three marks. A detailed description of a fault or faulty connection was given credit.

## Question 8

(a) To gain full marks, candidates were required to describe a virus and to describe how it might cause damage and most candidates answered this question well with good descriptions.
(b) This question was not answered as well as part (a) with many candidates giving descriptions of how anti-virus software deals with the virus after it has been detected rather than how it detects the virus. Good answers described scanning of ports, scanning the files on a disk and the crossreferencing to a database of known viruses.
(c) This question was answered well with most candidates able to describe the media sources that could be used. However, the question asked for descriptions and single word answers did not gain credit. Further, inaccurate use of ICT terminology such as "use a USB" did not gain credit.

Paper 9713/32
Written B

## Key Messages

A number of candidates did not attempt to answer all of the questions and consequently lost the opportunity to score all the marks available. Further, a number of candidates wrote their responses outside of the designated spaces for the questions and Centres are reminded to advise candidates that this may cause problems with the on-screen marking of their papers. Centres are strongly reminded to advise their candidates that any answers written outside of the designated spaces should be clearly cross-referenced by the candidate so the examiner can easily find the answer. There were too many instances of responses written in the blank spaces and not referenced and which could have therefore been missed by examiners.

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

Further, candidates must read the question carefully before attempting to answer it; it was apparent that candidates were not answering the question as set on the question paper but merely writing down information about a topic.

However, it was apparent from the many superficial answers seen by examiners, that some candidates did not know the syllabus content in enough depth.

## Comments on specific questions

## Question 1

(a) (i) This question was about the benefits of the use of CAD and not merely about the features of CAD that could be used. To score marks, candidates were required to describe how the features of CAD are of benefit during the designing of the farm tools. Many candidates did not score marks because, while they could describe the features, they failed to describe how these were of benefit. Too many candidates also described the manufacturing process, which was not required by the question, so failed to answer the question. Good answers briefly mentioned the feature and then described how this was of benefit.
(ii) This should have been an easy question at this level but too many candidates did not distinguish between input and output devices, and many of those that did distinguish, then failed to appreciate that the question required them to write about a specialist device. Answers that listed generic devices e.g. mouse or screen, were not given credit. Good answers included graphics tablets, light pens and plotters or high resolution screens.
(b) This question was not well answered by most candidates. The question required candidates to describe the ways that project management software would be used. Many candidates did not write more than a simple list without any descriptions - these were not given credit. Good answers could have included e.g. event chain diagrams for visualising multiple events, the use of alarms to warn managers or directors of stages not being completed on time.

## Question 2

(a) (i) Most candidates knew what VoIP meant and scored at least one mark for this question. However, a number of candidates did not fully describe the name and did not score that mark. It was pleasing to see that many candidates could write full descriptions and score both marks.
(ii) Many candidates scored good marks for this question with answers that gave good descriptions of the features.
(b) This question was about how video-conferencing enables group meetings to occur, so candidates were required to describe how it works rather than how to connect and use it. Most candidates failed to score marks because they described the meeting and how video-conferencing was used. Good answers included descriptions of the use of codecs, video and audio compression, noise cancelling, streaming of data packets etc. that enable the video-conference to take place.
(c) This question required candidates to write about recent developments that have allowed or caused an increase in the use of video-conferencing. Good answers included references to increases in travel costs, increased risks of international travel, the increase in available bandwidth and its reduced costs. Credit was not given for statements that did not refer to a recent development e.g. the invention of the Internet was not given credit.

## Question 3

Many candidates mixed up their answers to questions (a) and (b). Credit was not given for answers that appeared in the wrong place e.g. part (a) was about the automatic capture and not about the analysis of the data; candidates who wrote about the automatic restocking by the system were not answering part (a).
(a) Many candidates could describe the use of barcodes and RFID tags to collect data automatically, but a number of candidates described the manual input of codes using a keypad and thus failed to score the marks.
(b) This question required candidates to describe the processing that occurs in automatic stock control systems and should be well understood by candidates. However, the majority of answers were superficial and did not describe the process properly. While good answers referred to the automatic capture of the data from e.g. barcodes and its cross referencing to fields in a database, the use of pre-set stock re-order levels and the automatic sending of orders or emails to acquire more stock, too many candidates did not give sufficient detail in their answers. Poor answers such as "when stock arrives it is added to the database" or "when stock is taken out it is removed from the database" will not be given any credit.

Candidates were required to indicate the fields that would be affected during the process: this instruction was included in the question to prompt candidates to refer to the fields in the database but too many did not do this. Good answers referred to fields holding the barcode, the product ID, the number in stock and the pre-set re-order level and how this would be used.

## Question 4

This question proved disappointingly difficult to many candidates. Candidates were required to explain the use on the company network of a number of network devices or systems. Many candidates merely described the item without giving a suitable use so failed to score the full marks.
(a) Good answers referred to the storage of files and to remote access to files.
(b) Good answers referred to the connecting of LANS and Wans and to the use of IP packets to direct data to e.g. the correct employee.
(c) Good answers referred to the network card being the interface between the network cable and the computer and its role on preparing and receiving network traffic. However, many candidates merely described how and where it was fitted.
(d) Good answers referred to the provision of Wi-Fi by the wireless access point and the use by staff for connecting to the company network with mobile devices.
(e) Good answers referred to the secure exchange of company data and the enabling of remote access by staff.

## Question 5

Most candidates achieved the marks for identifying the protocols and many could explain a function of each protocol on the company network.

## Question 6

Many candidates mixed up their answers for parts (a) and (b) and wrote about the analysis of the data in part (a) and then repeated some of this in part (b). Credit was not given for answers that appeared in the wrong place e.g. part (a) was about using ICT to automatically capture weather data and not about the analysis of the data; candidates who wrote about the analysis and presentation of weather data were not answering part (a).
(a) This question was about the automatic collection of weather data. Good answers referred to weather balloons and weather satellites with sensors to collect weather data, the required conversion of analogue data into digital formats, and the descriptions of these.
(b) This question was about the analysis and presentation of weather data. Good answers referred to the use of appropriate software to analyse the weather data, the production of graphs and tables to present the data and to show trends, and the use of animations to display the data to an audience on e.g. television.

## Question 7

(a) Candidates were required to describe how television programmes from a television station are sent to a viewer's TV set via a satellite. Descriptions of terrestrial or cable TV transmission were not given credit.

Good answers included descriptions of the uplink, reception by the orbiting satellite, use of a different frequency for transmission back to earth, reception at a domestic satellite dish and the use of an LNB with a cable downlink to a domestic satellite receiver.
(b) This question was not well answered. Most candidates referred to the possibility of non-payment for a channel that requires a subscription but failed to supply sufficient detail for the full three marks. A detailed description of a fault or faulty connection was given credit.

## Question 8

(a) To gain full marks, candidates were required to describe a virus and to describe how it might cause damage and most candidates answered this question well with good descriptions.
(b) This question was not answered as well as part (a) with many candidates giving descriptions of how anti-virus software deals with the virus after it has been detected rather than how it detects the virus. Good answers described scanning of ports, scanning the files on a disk and the crossreferencing to a database of known viruses.
(c) This question was answered well with most candidates able to describe the media sources that could be used. However, the question asked for descriptions and single word answers did not gain credit. Further, inaccurate use of ICT terminology such as "use a USB" did not gain credit.

International Examinations

Paper 9713/33
Written B

## Key Messages

A number of candidates did not attempt to answer all of the questions and consequently lost the opportunity to score all the marks available. Further, a number of candidates wrote their responses outside of the designated spaces for the questions and Centres are reminded to advise candidates that this may cause problems with the on-screen marking of their papers. Centres are strongly reminded to advise their candidates that any answers written outside of the designated spaces should be clearly cross-referenced by the candidate so the examiner can easily find the answer. There were too many instances of responses written in the blank spaces and not referenced and which could have therefore been missed by examiners.

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

Further, candidates must read the question carefully before attempting to answer it; it was apparent that candidates were not answering the question as set on the question paper but merely writing down information about a topic.

However, it was apparent from the many superficial answers seen by examiners, that some candidates did not know the syllabus content in enough depth.

## Comments on specific questions

## Question 1

(a) (i) This question was about the benefits of the use of CAD and not merely about the features of CAD that could be used. To score marks, candidates were required to describe how the features of CAD are of benefit during the designing of the farm tools. Many candidates did not score marks because, while they could describe the features, they failed to describe how these were of benefit. Too many candidates also described the manufacturing process, which was not required by the question, so failed to answer the question. Good answers briefly mentioned the feature and then described how this was of benefit.
(ii) This should have been an easy question at this level but too many candidates did not distinguish between input and output devices, and many of those that did distinguish, then failed to appreciate that the question required them to write about a specialist device. Answers that listed generic devices e.g. mouse or screen, were not given credit. Good answers included graphics tablets, light pens and plotters or high resolution screens.
(b) This question was not well answered by most candidates. The question required candidates to describe the ways that project management software would be used. Many candidates did not write more than a simple list without any descriptions - these were not given credit. Good answers could have included e.g. event chain diagrams for visualising multiple events, the use of alarms to warn managers or directors of stages not being completed on time.

## Question 2

(a) (i) Most candidates knew what VoIP meant and scored at least one mark for this question. However, a number of candidates did not fully describe the name and did not score that mark. It was pleasing to see that many candidates could write full descriptions and score both marks.
(ii) Many candidates scored good marks for this question with answers that gave good descriptions of the features.
(b) This question was about how video-conferencing enables group meetings to occur, so candidates were required to describe how it works rather than how to connect and use it. Most candidates failed to score marks because they described the meeting and how video-conferencing was used. Good answers included descriptions of the use of codecs, video and audio compression, noise cancelling, streaming of data packets etc. that enable the video-conference to take place.
(c) This question required candidates to write about recent developments that have allowed or caused an increase in the use of video-conferencing. Good answers included references to increases in travel costs, increased risks of international travel, the increase in available bandwidth and its reduced costs. Credit was not given for statements that did not refer to a recent development e.g. the invention of the Internet was not given credit.

## Question 3

Many candidates mixed up their answers to questions (a) and (b). Credit was not given for answers that appeared in the wrong place e.g. part (a) was about the automatic capture and not about the analysis of the data; candidates who wrote about the automatic restocking by the system were not answering part (a).
(a) Many candidates could describe the use of barcodes and RFID tags to collect data automatically, but a number of candidates described the manual input of codes using a keypad and thus failed to score the marks.
(b) This question required candidates to describe the processing that occurs in automatic stock control systems and should be well understood by candidates. However, the majority of answers were superficial and did not describe the process properly. While good answers referred to the automatic capture of the data from e.g. barcodes and its cross referencing to fields in a database, the use of pre-set stock re-order levels and the automatic sending of orders or emails to acquire more stock, too many candidates did not give sufficient detail in their answers. Poor answers such as "when stock arrives it is added to the database" or "when stock is taken out it is removed from the database" will not be given any credit.

Candidates were required to indicate the fields that would be affected during the process: this instruction was included in the question to prompt candidates to refer to the fields in the database but too many did not do this. Good answers referred to fields holding the barcode, the product ID, the number in stock and the pre-set re-order level and how this would be used.

## Question 4

This question proved disappointingly difficult to many candidates. Candidates were required to explain the use on the company network of a number of network devices or systems. Many candidates merely described the item without giving a suitable use so failed to score the full marks.
(a) Good answers referred to the storage of files and to remote access to files.
(b) Good answers referred to the connecting of LANS and Wans and to the use of IP packets to direct data to e.g. the correct employee.
(c) Good answers referred to the network card being the interface between the network cable and the computer and its role on preparing and receiving network traffic. However, many candidates merely described how and where it was fitted.
(d) Good answers referred to the provision of Wi-Fi by the wireless access point and the use by staff for connecting to the company network with mobile devices.
(e) Good answers referred to the secure exchange of company data and the enabling of remote access by staff.

## Question 5

Most candidates achieved the marks for identifying the protocols and many could explain a function of each protocol on the company network.

## Question 6

Many candidates mixed up their answers for parts (a) and (b) and wrote about the analysis of the data in part (a) and then repeated some of this in part (b). Credit was not given for answers that appeared in the wrong place e.g. part (a) was about using ICT to automatically capture weather data and not about the analysis of the data; candidates who wrote about the analysis and presentation of weather data were not answering part (a).
(a) This question was about the automatic collection of weather data. Good answers referred to weather balloons and weather satellites with sensors to collect weather data, the required conversion of analogue data into digital formats, and the descriptions of these.
(b) This question was about the analysis and presentation of weather data. Good answers referred to the use of appropriate software to analyse the weather data, the production of graphs and tables to present the data and to show trends, and the use of animations to display the data to an audience on e.g. television.

## Question 7

(a) Candidates were required to describe how television programmes from a television station are sent to a viewer's TV set via a satellite. Descriptions of terrestrial or cable TV transmission were not given credit.

Good answers included descriptions of the uplink, reception by the orbiting satellite, use of a different frequency for transmission back to earth, reception at a domestic satellite dish and the use of an LNB with a cable downlink to a domestic satellite receiver.
(b) This question was not well answered. Most candidates referred to the possibility of non-payment for a channel that requires a subscription but failed to supply sufficient detail for the full three marks. A detailed description of a fault or faulty connection was given credit.

## Question 8

(a) To gain full marks, candidates were required to describe a virus and to describe how it might cause damage and most candidates answered this question well with good descriptions.
(b) This question was not answered as well as part (a) with many candidates giving descriptions of how anti-virus software deals with the virus after it has been detected rather than how it detects the virus. Good answers described scanning of ports, scanning the files on a disk and the crossreferencing to a database of known viruses.
(c) This question was answered well with most candidates able to describe the media sources that could be used. However, the question asked for descriptions and single word answers did not gain credit. Further, inaccurate use of ICT terminology such as "use a USB" did not gain credit.

International Examinations

## APPLIED ICT

Paper 9713/04
Practical Test B

## General comments

In terms of ICT skills, the paper for this session was relatively straight forward and the key to higher grades was attention to detail. In the simulation of a business scenario, it is important that candidates are aware of the need to ensure that documents and printouts are "proofed" and fit for the purpose described.

Worthy of specific note is that many candidates seemed unfamiliar with the use of calculated or run-time fields. Centres would be wise to address this.

## Comments on specific questions

## Task 1(a) - Select data for tables in a relational database

In the first task candidates were required to import data into 3 tables and create a relational database.
Candidates were then required to provide evidence of the fields in each table and 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, as long as all fields in each table were shown, a single screenshot of the relationships diagram was sufficient to display the fields, 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 1(b) - Creation of 3 reports

In the first part of this task, candidates were required to create a report where users were able to enter the month for which a list of subscriptions were due for renewal. The required printout for December was produced by most candidates and many configured the parameter query correctly. A large number of candidates did not consider the purpose and use of such a report however. As is the case in all tasks for this paper, candidates are required to simulate a business situation and prepare solutions for other users who should be considered as non-expert and unfamiliar with the source data. Candidates must, therefore, remember to provide prompts for parameter queries that provides sufficient context. For this report, users were to produce a report for the month of December. Since the source data used 3 letter codes for each month, users had to be made aware of this at run time. A suitable prompt might therefore have been, "Please enter the first 3 letters of the month..."

Almost all candidates who produced the printed report were able to group and sort the data correctly.
In the second part of the task candidates were required to prepare a similar report to print specified data about all members whose birthday fell within a month to be input at run time.

The source data contained the birthday data in date format and candidates were tasked with finding a method to select the data by entering the number of the month.

The most efficient solution was to create a parameter query with a calculated field that extracted the number of the month at run time. A number of candidates chose to use an alternative method and imported a new field from data generated in a spreadsheet. For this session this was an acceptable alternative, although Centres should be aware that marks may be lost for an inefficient solution.

All candidates who managed to create the report grouped and sorted the data correctly but again, many did not convey sufficient information in the parameter query prompt text.

Also worthy of note is the failure of the majority of candidates to show evidence that they were able to include the parameter input at run time by the user in the report header. Many had clearly just included the number 12 as a label when they should have been aware that the task was to design a report to be used for other months as well.

The third report was a simple count of the Standard and Premium members. In this part of the task, those candidates who chose to work in a spreadsheet of the original data did lose a mark for efficiency since there were too many extra steps in producing the database report.

Many candidates managed to create and successfully print all the reports as specified but a number did not include or attempt the Birthday report. There seems to be some evidence that many candidates are less confident with creating run time calculations; Centres might be advantaged by addressing this skill.

The final part of this task was to create a menu from which users could select and run the reports. Since the majority of the candidates used MS Access for this session, the simplest solution was to create a switchboard from which to run the reports. Many candidates used this option, but very few paid enough attention to the context of the menu. Many just provided a button with the default name of the report shown. Those who achieved full marks for this part of the task provided a description of the data provided by each report and guidance about any user input. It is worth noting that when preparing candidates for similar tasks, Centres should stress the requirement for suitable evidence. In this case, the task required evidence that selection of the menu option ran the correct report. Many candidates provided screenshots of property dialogs that were not at all relevant.

## Task 2 - Select data for a mail merge using a template document

Most candidates found this a straightforward task and produced merged letters.
Selection of the data for inclusion and exclusion was done well, but as in previous sessions, 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.

A few candidates did not show the conditional field as a mergefield, but those who could only managed to display the evidence as a screenshot and 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, many used an inefficient sequence and included a superfluous conditional field.

As an example, for the merge data for the payment method, many candidates configured the conditional fields as:
\{IF\{MERGEFIELD Payment_Method\}= "CHQ" "cheque "" \}\{IF\{MERGEFIELD Payment_Method\}= "Ccard" "credit card" "" \}\{IF\{MERGEFIELD Payment_Method\}= "DD" "direct debit" "" \}.

The third conditional field is unnecessary since the same results can be achieved by:

## \{IF\{MERGEFIELD Payment_Method\}= "CHQ" "cheque "" \}IF\{MERGEFIELD Payment_Method\}= "Ccard" "credit card" "direct debit" \}

Although no more marks were to be achieved, in MS Word it is possible to "nest" the conditions and more experienced candidates provided the following solution:

```
{IF{MERGEFIELD Payment_Method}= "CHQ" "cheque" "{IF{MERGEFIELD Payment_Method}=
"Ccard" "credit card" "direct debit" }" }
```

Once again, Centres are advised to stress the need for proof reading the results of the merge before printing. A great many candidates failed to ensure the 5 final letters were fit for purpose due to incorrect capitalisation or missing full stops in the text generated by the conditional fields.

## In conclusion

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

- the importance of efficient solutions
- the importance of providing context for users - particularly with respect to prompts in parameter queries
- the creation of calculated fields
- the logic of conditional merge fields
- the need to "proof" outcomes
- the production of documents that could be considered as fit for the business purpose described.

