

# APPLIED ICT

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Paper 9713/01

Written A

## General comments

Once again it appeared that whilst some candidates were better prepared than last November there were many candidates who were underprepared for this examination. There were a number of very high-scoring candidates but still very many who did not perform well. There were a number of candidates who clearly lacked the ability to perform well at this level.

It is still common to find candidates rote learning answers from past papers. This was particularly evident when, although some questions might have had similar key words to those in the past, the content of both the questions and the scenarios had changed markedly. 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 bullet points from previous mark schemes. The points listed on mark schemes are often a summary of the knowledge required to answer the question and should not be interpreted as an answer in itself. Candidates are required, in 'discuss' and 'explain' questions, to expand on the bullet points given in the mark scheme not just repeat them.

Candidates need to show an understanding of the scenario. Centres are reminded that this is Applied ICT and candidate responses are expected to take their knowledge and understanding and apply it to the context of the scenario. It is vitally important for candidates to realise that they need to refer back to the scenario when answering questions.

## Comments on specific questions

### Question 1

- (a) (i) This part was not very well answered. A number of candidates correctly identified batch process control as the answer, but failed to expand on what this involved. Some candidates gave an answer related to computer control rather than process control, writing about robot arms. Some gave an incorrect type of process control and a number wrote about batch processing which in ICT is a particular type of computer processing related to the production of payrolls, utility bills etc. and is not the same as batch process control. Too many candidates wrote about food mixing in general without referring to computers, microprocessors or process control.
- (ii) Candidates who failed to give the correct answer were in the majority and, as indicated by their answers to **Question 1(a)(i)**, seemed to have limited knowledge of process control.
- (b) Many candidates gained marks for mentioning microprocessors comparing inputs with a preset value but most seemed to be unable to describe exactly what actions the microprocessor would take as a result. Most appeared unaware of the role of actuators in the process. It was alarming to see how many candidates thought that sensors controlled the process rather than the microprocessor.

### Question 2

This question was quite well answered but a small number of candidates misunderstood the scenario, which referred to the company using ICT to produce its advertising materials, and wrote about television, radio and newspaper advertising. Most candidates who did well wrote about producing websites and multimedia presentations. Candidates were treated leniently when their answers did not include many benefits and drawbacks but this may not be the case in future. A 'discuss' question requires candidates to describe benefits and drawbacks in some detail.



A number of candidates gave more than two ways but as the question clearly required candidates to give **two** ways, only the first two answers could be given credit.

### Question 3

- (a) Candidates did not answer this question well. Most candidates who gained marks wrote about tools such as a calendar or a warning system for meetings. Few seemed to understand time management software or what it comprises.
- (b) Again, candidates were guilty of not reading the scenario properly and seemed unaware of the role of the designers, which was to produce a website. The security features which candidates needed to describe would have to be written into a website. A surprising number wrote about data protection principles. Candidates who gained marks were those who described the use of usernames and passwords and also encryption.

### Question 4

- (a) This question about using the website to make a purchase was well answered and had obviously been well taught.
- (b) Candidates often managed to get half marks for describing three of the mark scheme answers. A number mentioned phishing and/or pharming without describing them in any detail.

### Question 5

- (a) This question seemed to polarise candidates. Those that knew about CTI and IVR software did very well. There were too many candidates who did not appear to understand either.
- (b) This question on the effect on employees and their working patterns due to the introduction of online shopping was well answered with many gaining high marks.

### Question 6

- (a) This question was fairly well answered with candidates gaining marks for naming the two types of diagram. They rarely, however, went on to describe these in any detail.
- (b) This was not answered particularly well. Many candidates failed to realise the importance of the phrase 'recording of information' in the question. Candidates should have related the information recorded in the DFDs to the analysis.
- (c) Very few candidates gained both marks. A number managed to gain one mark for interviewing users.

### Question 7

- (a) This question, perhaps more than any other, typified the approach of many candidates who had learned previous mark schemes by rote. They appeared to see the words 'factors' and 'designing' and wrongly jumped to the conclusion that this was a question about the factors that influence the overall design of a new computer system. The result was that many answers were given which were completely unrelated to input and output layouts. Some concentrated on input and output devices rather than layouts.
- (b) Most candidates gained marks on this question on methods of implementation. Some failed to go into sufficient detail required at AS level but were still able to gain some marks.
- (c) This question caused candidates a number of problems. Again, a number of candidates reproduced answers found on a previous mark scheme despite the question being differently worded and worth twice as many marks.
- (d) This question was not well answered. A number of candidates described testing in great detail but failed to answer the question which was specifically about the process of evaluation.

# APPLIED ICT

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

## General comments

The majority of Candidates completed all elements of the paper. There were vast differences in the range of results from Centre to Centre and from Candidate to Candidate within Centres. Performance on the paper was generally better than last year, which was the first year of this qualification. There were elements of all sections of the question paper that caused Candidates some problems. This paper gave a good spread of marks. Candidate errors were spread evenly over the sections of the paper, although the longer spreadsheet tasks allowed for better differentiation of Candidates. Most Candidates attained some marks, however, only the most able were able to fully complete the tasks

A very small number of Candidates failed to print their Name, Centre number and Candidate Number on every document 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, as opposed to collecting the work of another Candidate from the printer, and annotating this with their name.

Several Candidates omitted one or more of the pages from the required printouts, the chart was the most commonly omitted printout. As this was not the last task on the paper it is unlikely that this was due to time constraints. A small number of Candidates submitted multiple printouts for some of the tasks and failed to cross out those printouts that were draft copies. If multiple printouts are submitted, Examiners will only mark the first occurrence of each page.

The introduction of a word processed/desktop published document into the question paper caused problems for some Candidates. Most Candidates demonstrated sound practical skills but failed to attain many marks on the knowledge and understanding required for this paper. Within this task there were a significant number who ignored the instruction 'In your own words'. Examiners found many copies of the help text from various software packages and even entire passages taken from websites like 'Wikipedia'. Candidates must be made aware that credit will not be given for text copied from sources like this and presented as their own work.

Please note that it is not necessary to staple together the work. Work should be submitted in the ARF. Some Examiners experienced difficulty marking some pages from some Centres, as Candidates had stapled all their work together in such a way that it was very difficult to separate the sheets in order to view and mark all of the work, particularly that shown in the headers and footers.

Overall the paper performed very well.

## Comments on specific questions

### **Questions 1 to 3**

This section was performed well by almost all Candidates. A small number were inaccurate in adding the labels. Some Candidates failed to add these 4 extra rows.

### **Question 4**

Most Candidates performed this step well using either a left or mid string function within their spreadsheet package.



### Question 5

A small number of Candidates did not complete this step. The majority did correctly perform this calculation. Some did not use an IF or similar function to test for a negative result before performing the calculation.

### Question 6

This was performed well by almost all Candidates. The lookup required the Candidate to extract the contents of the 3rd column, a small number of Candidates did not use this third column, instead extracting data other than the name of the airline.

### Question 7

Most Candidates performed this step well using an HOUR function to obtain the correct results.

### Question 8

Most Candidates performed this step well using a MINUTE function to obtain the correct results.

### Question 9

There were a number of interesting approaches to answering this question. Some Candidates took the original values from the two columns, performed the subtraction and multiplied the result of this by a fixed figure to obtain the correct results. The most popular solution was to multiply the contents of the 'hours' column by 60 and added the contents of the 'minutes' column. Most Candidates attained the correct answers.

### Question 10

This was performed well by almost all Candidates.

### Question 11

The AVERAGE function was used correctly by the vast majority of Candidates, although a small number did not use the correct range of cells within this function.

### Question 12

The MAX function was used correctly by the vast majority of Candidates, although a small number did not use the correct range of cells within this function.

### Question 13

This question caused significantly more problems. It required a solution using two functions placed within a formula, as no pre-defined function performs this calculation in current spreadsheet packages. The solution should have involved a COUNTIF or similar function to count if the value in the hour column was greater than zero, (or the value in the total minutes column was greater than 59 minutes), and to divide this by a count of all the values in one of these columns (or a count of the number of records using a count function for alphanumeric values).

### Question 14

There were a number of sort errors submitted, either sorting in reverse order with the 'Total minutes' as the primary sort, or completing only the primary sort on 'Airline', but omitting the secondary sort. There were a number of submissions where Candidates had completed the secondary sort into ascending rather than descending order.

### Questions 15 to 18

Almost all Candidates fully completed **Questions 15 to 18** with no problems.



### Question 19

This was performed well by almost all Candidates, although a very small number of Candidates ignored the word inclusive in the question paper and searched for 2 or 3 minutes late.

### Questions 20 to 21

These questions were performed well by almost all Candidates. There were a small number of typographical errors, including case errors and spelling errors in the header of step 20.

### Question 22

Almost all Candidates fully completed this question with no problems.

### Questions 23

This question was performed well by most Candidates, although again there were a number of typographical errors, including case errors and spelling errors.

### Question 24

This was performed well by many Candidates, although few Candidates produced this printout without showing the row and column headings.

### Question 25

This was performed well by many Candidates, although few Candidates produced this printout without showing the row and column headings.

### Question 26

Many Candidates counted the data correctly using a COUNTIF function. A small number of Candidates performed the calculations manually and entered values into the cells.

### Question 27

Many Candidates appeared to find this question more difficult. A number left this column blank and several added values rather than formulae. Some Candidates used multiple columns for this and many applied a SUMIF function but referenced the wrong data. This question differentiated well between the average and exceptionally talented Candidates.

### Question 28

This was performed well by many Candidates, although some Candidates had structured their formulae and functions so that they could not be readily replicated.

### Questions 29 to 31

These questions were performed well by almost all Candidates who submitted these two printouts. A number of Candidates did not print these.

### Questions 32 to 34

These questions were found to be more taxing by many Candidates. Most managed to search for the 7 correct airlines (that had six or more flights) and many managed to produce the correct data upon which to base their charts. The production of the charts was not as well executed. Many Candidates chose to select a line graph which was not the correct type of chart as line graphs are used to show trends and as there was no relationships between the airlines upon which to base these trends. Many Candidates produced graphs showing the correct data, with two value axes and one category axis. Labelling of the chart was not as successful, a large number of Candidates failed to add a meaningful chart title, axis titles (for all three axes) and a legend to distinguish which data series related to which axis. At AS level Candidates are expected to produce labels with consistent case, which was not attained by several Candidates. There was a clear instruction in the question paper to rescale the number of flights axis to start at 5 (as the search was for 6 and over), a significant number of Candidates ignored this instruction. A small number of Candidates set the

minimum axis value on the wrong axis. As a differentiator for the A\* Candidates there was an expectation that the Candidates should realise that the value axis for the number of flights could not contain decimal values and should therefore be stepped in whole units. The software used by many Candidates did not perform this function and it was expected that the better Candidates would realise this and suitably adjust this axis. Few Candidates did this as part of the appropriate scaling of the axes..

### Questions 35 to 38

This question caused some issues for Candidates.. Most demonstrated reasonably sound practical word processing or desktop publishing skills. Marks were only awarded for this section to Candidates who had produced more than 100 words. Despite the question specifying between 100 and 300 words, a number of Candidates submitted far more than this, much copied and pasted from the Internet. In the question it specified 'in your own words' which means that any text copied from any source would not be acceptable as an answer. This question was built in two parts, firstly explaining what widows and orphans were, and secondly how you ensure that you remove them. The question started with In your own words, a significant number of Candidates ignored this statement and copied verbatim (or in many case copied and pasted from other sources) from the word processor or desktop publishers help files, from online help or even site like Wikipedia. The question did not preclude the Candidates using these sources, but they were expected to find, distil and at the very least paraphrase this information. The question was specific about its target audience so the material needs to have been presented in a format expected within a business context. The use of text annotation or other shorthand notation was not deemed acceptable for this context. The first two marks were awarded for widows and two for orphans and an explanation of their meaning. One Internet source used did not contain reliable information. There were also a number of sources which appeared confused over what a widow was and an orphan, and many Candidates included these errors in their work. Generally many Candidates obtained all four of these marks. The marks for how the Candidates remove these from their documents were not attained by as many Candidates. Many copied and pasted their responses, so these were not written in the first person (as in "When I..." or "To remove these I...") which was a requirement of the question. Candidates were expected to give a broad range of answers including both automated solutions and manual methods of removing these. As the maximum number of words was 300, work extracted from other sources must have been reduced in length and rewritten to be suitable for this task.

There were a number of style definitions given in the question paper, page size and orientation as well as columns and font styles. The vast majority of Candidates did not set the page margins and gutter as specified, although most set the font to serif and fully justified the text. Almost all set a 14 point font and 1.5 line spacing. Most added the correct headers and footers but a significant number did not align the headers and footers correctly to the page margins. Within a business context, precision of document layout is still important and Candidates must ensure this in their submissions.

### Question 39

A number of Candidates placed this image in the top left corner of the page. The image was supposed to be cropped and resized to fit the column width. Many cropped it correctly but few set the size to the exact width of the column. A number of Candidates did so but distorted the image by not maintaining its aspect ratio when it was resized. Almost all of the Candidates wrapped the text below the image.

### Questions 40 to 43

This was performed well by many Candidates, although a few Candidates failed to produce the screenshots showing the evidence of the completed hyperlinks. There were a small number of typographical errors in the URL for the website and the e-mail address.

# APPLIED ICT

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Paper 9713/03

Written B

## General comments

This second November session resulted in more entries. Most centres entering this session had very few candidates and these showed poor knowledge or understanding even at IGCSE level. There were many cases of candidates listing items/features, and failing to expand on each point.

The language used by candidates was good and caused no concern to marking the scripts. Some candidates left sections blank which is not good examination technique.

## Comments on specific questions

### Question 1

This question about MP3 players should have been familiar to all candidates. It should have been an easy question to answer provided candidates remembered that this is an ICT paper and they described the technology.

- (a) This section expected candidates to explain the ICT developments that have led to the demise of CDs. Stating a file size was not awarded a mark. Few candidates successfully described CODECs.
- (b) The marking points that were accepted are the ones set out in the markscheme. Answers from part (a) were not accepted in this section. Answers about robustness were not accepted as there is no one technology that is more robust (anecdotes about pen drives and CDs going through washing machine cycles and still working).
- (c) (i) There were many statements that digital is faster. This shows a lack of technical knowledge: they both travel at the speed of light. An ADC is not required for this technology.  
(ii) A simple question yet one that many failed to appreciate. A number of candidates gave use of satellite dishes rather than an aerial. Few however mentioned the need for a digital receiver/decoders connected to tv.

### Question 2

- (a) This is an IGCSE topic and providing a list is not worthy of an A2 answer.
- (b) Few candidates demonstrated understanding of the requirements of someone running a business wishing to communicate with tens of thousands of potential customers. Daniel would not have the time to hold a video conference with each customer, nor send them individual emails unless it was a specific need. He would however use a webcam to produce a webcast for an audience. He would attach a newsletter to a bulk mailed email etc.
- (c) Few candidates provided more than one valid answer from the list given in the markscheme. Some candidates were giving answers about using DTP, presentation software and CAD for creating a professional web site for a large business, which is not realistic.
- (d) Candidates appeared to have no idea what multipart stationery was. Very few indeed gave more than a printer. Several gave speaker which shows a very poor level of understanding at A2.



### Question 3

This was a straight forward question about networking in a business and the safe use of laptops.

- (a) This section covered the advantages and was well answered. Wireless networks do not provide faster data transfer rates — the opposite is true.
- (b) A very easy topic and most candidates scored several marks. A laptop is not very heavy so the usual answer about falling heavy loads was not accepted.

### Question 4

Most candidates should have been taught about on-line booking systems. This question went further using e-tickets which have certain properties. Candidates were not clear about the fact that for years customers have been able to order tickets online without going to the travel agent or airline office. The paper tickets were then posted on to the customer. E-tickets change quite a lot for both the airline and the customer.

- (a) This section was about the advantages to both the customer and the airline. Most candidates scored a couple of marking points.
- (b) This section resulted in candidates offering very weak answers. Many stated that a bar code would stop two copies of an e-ticket being used; it is a passport or other form of ID that was required.
- (c) This section dealing with effects on society were sometimes answered quite well but many candidates failed to understand the impact felt by members of society. 'People becoming lazy' is not an effect of e-tickets and was not an acceptable answer, nor were generic answers about using the Internet.

### Question 5

- (a) A very easy question about flight simulators and most candidates scored a few marks.
- (b) Very few understood that they needed to describe how a computer drove the simulator following a scenario or the inputs from a pilot. Some knew the components but could not link them together.

### Question 6

Candidates often failed to read the stem so confused 'use' with 'create'. In this question very few included the scenario as part of their answers when they were correct in describing the stages outlined by the markscheme.

### Question 7

This was another easy question derived from IGCSE stages of analysis with seven stages recognised, not just the analysis stage. Most candidates scored marks from the points set out in the markscheme.

### Question 8

- (a) Answers to this question needed to be in context. It was not a difficult question and candidates usually scored some marks. Candidates sometimes went into the actual design rather than the research aspect.
- (b) This question has been asked before and some centres had taught the answers to their candidates. The use of an expert system was not accepted in this question scenario.





**Question 9**

A business using video conferencing will use several large screens, there will be a high speed communication link. An answer of web cam standard pc was often given, with no justification so no mark was given.

# APPLIED ICT

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**Paper 9713/04**  
**Practical Test B**

## General comments

The data handling aspects of the paper were handled well by most candidates, however, many candidates failed to recognise that explanations, descriptions, labels and prompts should be written for non-ICT specialists (users). This may well be an area centres will wish to emphasise in preparing candidates since tasks at this level are intended to simulate a business scenario and that the output should reflect this.

Many candidates were able to pursue the integration of the tasks and clearly recognised the development of the outcomes. However, a number failed to provide sufficient evidence.

## Comments on specific questions

### **Task 1-3 Database set-up and structure.**

All candidates completed this section well, but very few candidates provided good explanations of why the types of relationships were created by the application. Theoretical details involving terms as “Primary keys” and “Foreign keys” were not required. A suitable explanation would cover the reason the type of relationship was created. For example “... a Many-One” relationship was created because there may be Many “Enquiries”..for One “Region”.

### **Tasks 4, 5, 6 and 7 – a parameter query and reports**

Most candidates were well prepared for these tasks and provided evidence of both the search criteria and a suitable prompt. It is in this regard, however, that it would be worthwhile stressing that the intended user of the simulated system being created should be regarded as a non-ICT specialist and prompts should, therefore, be full, clear and professional in tone.

**Tasks 5 and 6** required printed documents; screenshots of the reports were not acceptable. Successful candidates were careful about the grouping, sorting and in particular the visibility of all the data. As a part of the business scenario, candidates need to provide documents of professional quality. Copy typing of titles and the layout of the data is important. Candidates often lost marks by some carelessness in this regard.

**Task 7** involved exporting a report to a word processing application and editing the result in **Task 9**. These two tasks were generally well done but a number of candidates failed to realise that they were required to move their candidate details from the footer of the exported report to the footer of the new document. Centres may also be wise to highlight the difference between report and page footers in the database application.

### **Task 8– a Menu for the selection and production of the documents.**

It worth stressing that the Menu was intended as an interface for a user not involved in the creation of the system or indeed skilled in the use of ICT. Whilst most candidates provided a working Form or Switchboard menu, very few included descriptions that were detailed enough to inform the user of the content and purpose of the resultant document.

### **Task 10 – Mailmerged letters.**

Candidates were asked to provide a printout showing all the field codes. This required the visibility of both the mail merge codes and the document field codes. This was necessary in order to provide evidence for the award of marks for the correct usage of the conditional field. Without evidence of a valid method of automating the insertion of text, marks cannot be awarded for that step. Some failed to realise the difference and showed only the mail merge codes. Others who recognised the difference, but were unable to change

the settings, provided screenshots showing both sets. It should be noted that the question paper specifically states that candidates should “print this document showing merge and field codes.” Screenshot evidence should not be used where a printout has been specified.

A disappointing number of candidates provided merged letters that showed they were unfamiliar with accepted layout and content of business letters. A number of candidates also lost marks for the inclusion of the prompts provided in the template files as “labels” for sections such as the address and the name of the intended recipient. Centres may wish to ensure that candidates are fully familiar with accepted layouts of business letters and professional documents in general.