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Examiners' Report Summer 2007

IGCSE

IGCSE ICT (4385)

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Paper 1F

General Comments
Candidates were giving fuller answers this series, however it was felt that the general level of response from candidates was lower than it has been in previous years.

It was evident from candidate responses that the ability of the candidates was related to how well a centre had prepared the candidates for the examination.

Report on Candidates' Responses
Q1 (a)(b)(c)– good introductory question with most candidates gaining full marks at all levels of ability.

Q2 Well liked by all candidates. Centres had prepared candidates well in data storage media.

Q3 (a)(b)(c) This aspect of the database question was well liked by the majority of candidates. Full answers were given which demonstrated their knowledge of this aspect of database structure. In (d) (e) (f) and (g) Most candidates found difficulty with these sections. It appears that candidates still expect to find the price of an item encoded in the bar code. The difference between the use of a bar code and a stock code was also poorly answered. Candidates at this level also found difficulty in deriving search criteria for a database.

Q4 (a)(b)(d) (e) The better candidates scored well here. Most candidates who lost marks on this question did so by not understanding the question fully. The question requested advantages and disadvantages for the company. Those candidates who provided answers from the customer's viewpoint did not gain any marks. In (c) Many candidates lost marks here by not being able to give two clear advantages of using e-mail. They must make a full comparison when answering questions of this nature.

Q5 (a)(b)(c)(d) Candidates struggled here with the majority gaining 3 out of the available 7 marks. Most candidates knew how many bits were in a byte but few could explain the concept of a 'bit' or relate to characters being held in ASCII code.

Q6 (a)(e) Very good responses at all levels. Candidates were aware of the role a modem plays in connecting to the Internet. Candidates also demonstrated the knowledge of software required when connecting to an ISP.

(b)(d) Few candidates could explain the remaining sections of the network system. It appeared that candidates could not recognise the features associated with Wireless connectivity.

Q7 (a)(i) Good responses given here at all levels. Candidates were fully conversant with the concept of daily backups
(ii) The better ability candidates were able to establish why backups were best carried out at midnight.

(b) Most candidates struggled with recalling the sequence of events needed to restore a backup.

Q8 (a) Generally good responses given with most candidates gaining full marks at all levels. In (b) Most candidates lost marks here by not relating their answers to Internet services as stated in the question.

Q9 There were mixed level of response to this question. In (a)(b) Good responses to these parts of the question. Candidates were aware of the sensor to be used in a control situation and most could suggest a suitable mechanism for removing the bottle from the conveyor. In (c)(d) Few candidates could describe the processing involved in a control situation.

Q10 (a) Foundation candidates found the design of a data capture forms a difficult task to carry out. In (b) the concept of encoding data was also difficult for candidates at this level. Most are still under the impression that it is to keep the data secret and cannot relate it to a computer-processing requirement.

Q11 (a) Foundation candidates were not able to give suitable reasons for using a conventional keyboard instead of the biometric scanner. Most seemed to think it would cause a breech of security and provide easy access. This was not the context of the question. In (b) most candidates could give two biometric methods for logging onto a computer. In (c) (i) providing a suitable explanation of data encryption was difficult for most candidates. In ii) most candidates were able to relate access levels as a means of controlling file access.

Q12 (a) Few candidates could explain what an operating system was. Most reordered the question by saying it was a system that operated a computer. In (b) only the very best candidates scored well here. Most found this aspect of spreadsheets difficult to cope with

Q13 (a) –(c) Foundation candidates struggled on this question. Most could recognise the presence of a virus and knew how to remove it. Spyware and Mail worms however proved to be more difficult. Spyware became confused with pop-ups and mail worms seemed to be a difficult concept for them to grasp.

Paper 2H

General Comments
The overall qualifying responses of candidates to the paper seemed to be lower than last year. Candidates that had been prepared well by centres gained good marks- this was to be expected.

The space provided on the examination paper indicates how much the candidate is expected to write. Should the candidate need to use more space, extra paper is made available but the candidate should clearly indicate which answers it refers to. Candidates should be reminded that it is quality and not quantity of the response which gains the marks.

Report on Candidates' Responses
Q1 (a) This should have been a straightforward question for candidates at all levels but candidates mostly confused web site features with services and therefore lost marks. In (b) Good responses from most candidates gaining full marks at all levels. Some candidates however gave suitable web site services but failed to gain full marks, as they were not related to the television program. Candidates must read the examination questions carefully.

Q2 This question was again well answered with the majority of candidate's gaining good marks. (a) and (b) were well liked by all candidates. A range of suitable sensors were prevalent and in part (b) candidates gave varied descriptions of mechanisms for removing part filled bottles (c) The better candidates were able to give good descriptions of the control process.

Q3 (a) Again good answers from the better candidates with some very elaborate data capture forms. Some candidates lost marks as the provided a screen entry form
(b) As in the foundation paper there was confusion in the purpose of data encoding. It has nothing to do with the security of data, as most candidates seem to think. Candidates must be taught the difference between encoding data to increase the efficiency of data entry or to save on processing time and the encryption of data, which is for security purposes.

Q4 (a)(b) Good responses at all levels. Candidates were conversant with biometric access devices (c) (i) Only the stronger candidates were able to provide good explanations of encryption (ii) Candidates at all levels were aware of setting access levels and were awarded marks accordingly.

Q5 (a) Few candidates realised the information had to be shown as text to obtain the correct presentation in the spreadsheet. Many talked about using hyphens instead of minus signs. In (b) Good answers from most candidates. Candidates were well aware of the need for a unique identifier in the spreadsheet and database. In (c) Good responses at all levels. The use of IF statements and formulas had been well covered by most centres.

Q6 (a)(b) Candidates at all levels demonstrated their knowledge of computer viruses. There was confusion however from some candidates on what Spyware was capable of doing.

(c) Few candidates could clearly explain what a mail worm was and how to protect a computer against this infection.

Q7 (a) As in the foundation paper candidates lost marks here by not giving answers in the context of a Word-processing application. Many candidates just discussed WIMP features in general. Candidates must read and understand the questions they have been given.

(b) The better candidates did well here scoring full marks. The weaker candidates could only name two other interfaces. No description was given.

Q8 (a)(b) This question was badly answered throughout providing disappointing responses here. Very few candidates could offer satisfactory answers. The stronger candidates were aware that flash memory was slower than RAM but that was all that was offered.

Q9 There were mixed level of response to this question. In (a) most candidates found difficulty in explaining why stock codes and bar codes were required in the context of the question. In (b)(c)(d) good responses were given by all candidates.

Q10 (a)(b) Generally good responses but some candidates lost marks by not giving answers from the company's viewpoint. Those who answered from the customer's point of view were not awarded marks. As in earlier questions candidates must take time to read and understand the question being asked.

Q11 (a)(b)(c) Poorly answered by the majority of candidates. In (c) most talked about improved resolution and not the range of colours available. In (d) The majority of candidates gained one of the available two marks here with answers linked to increased processor speed and faster data movement. Few candidates were able to talk about fewer overheads on memory or storage.

Q12 (a)(b)(c) good responses by candidates in all sections.

Q13 (a) The majority of candidates could explain a suitable backup strategy. It would help candidates if they could understand the difference between 'regular backups' and 'frequent backups'. A backup taken once every year is a regular backup but this is not a suitable period of time for running a backup. In (b) Candidates struggled with this part of the question. Most gained a mark for suggesting a suitable medium but few could provide the expansion needed for full marks.

Paper 03,

Electronic submission.
There is currently no provision for electronic submission of paper 3A, the project. There were a few instances this year where centres sent in CDs. These were looked at as far as it was possible but some of the work was submitted in an unreadable form such as database tables.
Set tasks may be submitted electronically. The procedure for doing so is given on the web site: http://www.edexcelinternational.org/VirtualContent/82378/ICT

Set Tasks.
A detailed report on the individual tasks will be included in the examiner's report for the November examination. The following advice deals with presentation of the work and are applicable to both the 2007 and future papers. Following the advice may enable some centres to reduce their workload and improve their candidates' marks.

- The Set Tasks do not need to be bound. They are best presented as loose leaf in an A4 plastic pocket or document wallet. Markers need to be able to compare pages, e.g. Design and final product. This is much easier with loose pages. If staples or other fastening methods are used, care should be taken not to obscure or damage the work.
- The Set Tasks and Projects should be submitted as two separate bundles of work. Putting a candidate's work into a single binding must be avoided as the Set Tasks will have to be removed and this may result in the work being damaged.
- All pieces of work should be clearly labelled with the candidate's name, number and task identification. The task identification becomes essential if a candidate does not complete all of the tasks as it can sometimes be hard to work out which task the candidate thought they were doing.
- Extra work must not be submitted. There are marks for sticking to the required number of pages. There are no marks for anything which has not been specifically asked for in the tasks.
- Anything that the candidate thinks is worth a mark should be annotated, explained and presented in task order. Markers do their best to find everything which is worthy of a mark but some candidates have the ability to present their work in the most obscure and muddled way possible.
- All of the tasks have a design element. The correct sequence of events is design it first, make it afterwards. Doing things in reverse order often results in lower marks.

Projects.

Most of the work was presented in a satisfactory manner, but the following guidelines may enable some centres to improve their candidates' marks.

- Each project should have a cover sheet, clearly labelled with a minimum of the candidate's name, candidate's number and the centre number. A completed version of the IGCSE ICT coursework cover sheet would be suitable for this purpose. The sheet may be downloaded from: http://www.edexcelinternational.org/VirtualContent/82378/ICT_coursework_cover_sheet.pdf
- Projects should be securely bound. Spiral binding or secure stapling will usually suffice. A single treasury tag or length of string is not really sufficient as pages can easily be detached when the project is handled.
- Projects should have a contents page and matching page numbers. These could be written in by hand when the project is finished. It is not compulsory but it is always useful to know where candidates think they have put the different sections of their project.
- Projects should be presented in a logical order, preferably Identify, Analyse, Design, Implement and Evaluate.

It was obvious that a number of candidates were submitting GCE O Level style projects. There is no prohibition on this but candidates must be made aware of the differences in the specification between O Level and IGCSE. Much of the work in an O Level project is superfluous to the IGCSE requirements and therefore gains no marks. e.g. most of the systems analysis. On the other hand, the IGCSE requires much better evidence of the design and production process. An O Level project would require a substantial rewrite to gain the same degree of credit in the IGCSE.

The IGCSE Coursework Guide for Students gives detailed information on what is required. The guide may be downloaded from:
http://www.edexcel-international.org/VirtualContent/83088/ICT_guide.pdf

Identify.
Most candidates were able to identify a suitable problem, but it was clear that many of them had reverse engineered the whole project by making the application first and then arranging the other sections to fit what they had done. This nearly always results in the candidates losing marks by having weak identify, analyse and design sections.
Many candidates failed to fully identify their user. Higher band marks require identification by name, not just by the company or group. Letters from users should be separate documents, not just typed into the body of the report.
User requirements or objectives were often generic and untestable. Proving that a system can find a record in 30 seconds or that less staff are needed is very difficult to do. Higher band marks require testable objectives.

Analyse.
Hardware and software were generally well described and most candidates were able to give reasons for their choices. There were some good attempts at data flow and system diagrams, but descriptions of the collection and manipulation of the raw data were usually incomplete. Where candidates identify multiple raw data types or sources, they should try to include all of them in their write up. Alternative outputs were rarely explored and when this was done, the alternatives proposed were often of the type, 'screen versus printout'. Alternative screen layouts, report formats or other variations on one type of output were rarely considered. Backup and security were frequently restricted to the candidate's own work. The needs of the user should also be addressed.

Design.
The correct sequence is:

- initial design
- user comment
- final design.

Candidates who actually did that were in a distinct minority. Candidates should be reminded that the markers only have the written account to look at. If the design is missing, so are the marks. Furthermore, if there is little or no design, the marks for Implement will be low, since the middle and higher bands depend on a design being followed.
User comments should be backed up with evidence, not just reported. Annotations to designs will be suitable for this purpose in many cases.
The final design should be sufficiently detailed for a third party to be able to make the application. This was rarely possible. Candidates should be reminded that items such as field types and sizes, file locations, and fonts used need to be included. The candidates probably know what everything is and where it is stored, but the markers can only assess what is written down.
Testing was another weak area. Many candidates simply listed a set of validations. The test plan may well include such validations but it must also specifically test the objectives or user requirements given in the Identify section.

Implement.
This section should be considered in three parts.
Firstly, candidates need to show clear evidence of a production process, not just present a finished product with no information about how it was made.
Secondly, they should clearly demonstrate that the design has been followed and the objectives met. This will be difficult if there was no design or only vague objectives.
Thirdly, the test plan needs to be followed and evidence given for the result of each test. Simply claiming that it worked is not worthy of marks.

Evaluate.
The evaluations were generally weak. A lot of candidates did refer back to their original objectives and claimed to have met them but very few gave any evidence to back their assertions. A few page references would have sufficed in most cases.
Most candidates did not produce evidence of user feedback. Many had unsigned letters or reported comments but this is not enough to access the higher band marks.

Statistics

4385										
Option 1 (1F, 3A & 3B)		*	A	B	C	D	E	F	G	U
Raw Mark					42	36	30	24	18	0
Option 2 (2H, 3A & 3B)		*	A	B	C	D	E	F	G	U
Raw Mark		62	53	44	35	26	21			

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