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Examiners' Report

GCE O Level Computing (7105)

June 2006

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COMPUTING 7105, CHIEF EXAMINER'S REPORT

Paper 1

General Comments

The standard of answers provided by candidates was of a good standard but tended to be centre specific. This was generally linked to how well centres had prepared candidates for the examination.

One or two centres are still allowing candidates to fragment answers; this practice should not be encouraged. Centres should also instruct all candidates to enter question numbers on the front page of the answer booklet. As reported in previous years, the lack of numbering of questions puts an unnecessary workload on examiners, as time must be taken to complete this before marks can be aggregated to the front of the exam paper.

Section A

Question 1
Part (a) was generally well answered by the majority of candidates and there were few difficulties here. Some candidates lost marks in (b) by not giving suitable applications

Question 2
Many candidates gave good answers to (a), with no difficulties encountered. In (b), the majority of candidates gained one mark for making the file 'Read only'. Most candidates lost the second mark: this was awarded for mentioning changing access rights/attributes.

Question 3
Generally well answered, with the majority of candidates gaining at least two out of the three marks available. Candidates are happy with the idea of protecting passwords.

Question 4
There were good answers to (a), and most candidates gained both of the marks available. The use of databases had been covered well by all centres. In contrast, there were some disappointing answers in (b). It appears that students were not prepared for the roles and tasks of a systems analyst. In the past this type of question has always had good responses by candidates. It is an area of the syllabus that centres should not neglect.

Question 5
Many candidates gained full marks in (a), although some did not name the actual sensors used (thermometer, photocell etc.) but opted for the more general, but less creditworthy, answers such as temperature sensor, light sensor. Part (b) saw many candidates scoring good marks. It was evident that data logging had been given good coverage by centres. Weaker candidates had problems with (c). It was not realised that a graphical display was best suited to analyse data in this format.

Question 6
Part (a) was answered well by the majority of candidates, although some still mix up the terms verification and validation. Candidates appeared not to be confident in describing a suitable method for backing up a computer system in (b)(i). In the past candidates have always been able to give a full account of this type of backup system. The correct answer was given in (b)(ii) by all but the weaker candidates. Most candidates gained full marks in (c) by referring to data compression of some sort. Few candidates mentioned an incremental backup method. This was reflected in the answers given in (b). Centres must make candidates aware that larger systems still use incremental backup methods of some sort and do not rely on Zip drives and CDROMs

Question 7
Answers to part (a) showed that e-mail had been well taught by centres. Some good responses were seen here, with nearly all candidates gaining the full quota of marks available. All but the weaker candidates gained full marks in (b). Again, the use of the Internet had been well covered by centres. There were many opportunities available for candidates to gain marks in (c) (see answer scheme), but many candidates repeated the responses given in (a) or (b) and therefore were not awarded any marks.

Question 8
Most candidates gained full marks in this section in (a). Some of the weaker candidates were confused by the use of WAN and LAN and often mixed them up. Good answers were also give in (b) by the majority of candidates. However, most candidates failed to gain marks in (c). As was shown in previous questions, job roles in the computer field do not appear to have been covered in any depth by most centres.

Section B

Question 9
Candidates at all levels liked this question. Candidates not annotating the form to explain how the various features worked generally lost marks. A few candidates lost marks by adding a box for signatures. This would not be a feature of a screen form.

Question 10
The higher ability candidates scored better on this question. Many candidates lost marks here by not relating reasons for choices to the Case Study. In many cases, the answer was given in the Case Study, but candidates must make this link to score marks.

Question 11
Many candidates lost marks here by confusing clients' use of e-mail and company use of e-mail. There are distinct advantages to both these parties using e-mail: the only common ground being was the fact it was available 24/7. Candidates must be careful when reading questions of this type to ensure they apply the correct facts in the right section.

Question 12
Poorly answered by all candidates. Very few candidates were able to indicate the processes occurring in either part of this question. To maximise marks on this type of question, candidates need to be very familiar with the Case Study. It is in the students' interest that centres work with candidates on receipt of the Case Study to ensure that candidates fully understand the processes involved.

Question 13
As above, this question produced poor response by all candidates. Many candidates were under the assumption that the web cam was monitoring the portable weather station, and not the weather in question. Candidates must be fully conversant with the Case Study for the examination before they go into the examination hall. Candidates not understanding the Case Study fully are at a disadvantage in this section of the paper.

Question 14
Part (a) elicited a poor response from candidates at all levels. Many candidates did not understand the structure of a bitmap and were unable to relate this to the depth of colour contained in any image. In contrast, (b) produced good responses from many candidates at all levels. Most candidates could describe the process of data compression in (c). Higher level candidates were able to expand the answer to gain all the marks available for this section

Question 15
Most candidates lost marks here. Candidates did not seem to be aware of the control processes required to achieve the capture and transmission of the data to Weatherproof.com. Most candidates gained a mark for the use of the appropriate sensor. Few suggested that conversion from analogue to digital was required, and many missed the transmission method to the main site and the fact that data needed to be stored when it arrived. As in previous questions much can be gained by the candidate by fully understanding the Case Study before the examination is approached.

Paper 2 (Project)

General comments

As in previous years, the majority of projects were done using MS Access, but it was good to see a number of other software types being used as well. There were also a few programming projects, using various forms of BASIC. Project topics were varied, although leaning heavily towards stock control or membership systems.

A number of candidates sent in CDs with their work. Centres should not waste postage on these, as the examiners only mark hard copy. Electronic submission of material may become possible in the future but nothing should be sent until official arrangements have been made.

A few candidates submitted projects based on hardware or networking problems. While this is not forbidden, it is extremely difficult for candidates to produce the evidence required by the mark scheme when doing this sort of work. Supervisors should probably advise against these attempts and should certainly make it clear to candidates that they may run into difficulties.

Projects were generally well presented and bound, but there are still a few centres which are sending loose-leaf material. This is not a good idea, especially if the candidates do not number the pages. Spiral or comb binding works well, but if binding facilities are not available a few punched holes and some string would keep the pages together.

Page numbering and project ordering were good in most cases, but there are still centres which are letting their candidates send in work without a contents page or page numbering. The markers do their best, but some candidates insist on writing their reports in a most illogical fashion, e.g. hiding important bits of their work, unmentioned, in the middle of an unrelated appendix. A contents page and page numbers would go a long way to helping markers find the marks. It would at least let them know where the candidate thinks they have done each section.

As in previous years, a number of centres have provided their candidates with a project template. There are still several poor templates being used, in that they do not cover all the sections of the project specification. **As a result, candidates using such templates cannot access some of the marks available.**

Candidates should be encouraged to look at the specification and the Coursework Guide for Students. The guide is available from:
http://www.edexcel-international.org/VirtualContent/49165/Coursework_guide_for_students.pdf

It was good to see that the number of candidates who were using templates that gave too much content appears to have reduced again this year. There is still quite a lot of generic padding material about software packages, success criteria, validation techniques and testing methods, but it is not worthy of any credit and simply wastes printing and postage costs.

Identify

Most candidates were able to identify suitable projects, but a significant proportion were unrealistic in terms of the organisation that they claimed to be working with. Large hotels, government departments, international companies, etc. are unlikely to be still operating on purely manual systems. It is accepted that many projects will be role-played rather than real, but in such cases supervisors might suggest that something smaller be attempted.

The most common problem in Identify was that candidates failed to give testable objectives or success criteria. All too often the criteria were such things as being able to find a record in 30 seconds, being able to reduce staff, making the business more efficient. There are marks in other sections which rely on candidates demonstrating that they have met the objectives and fulfilled the success criteria. Candidates who do not have something testable are unable to access those marks.

Design

When discussing software alternatives, candidates should be discouraged from listing packages which they have obviously never used and quite possibly never seen. Such work is rarely worthy of credit.

When designing a test plan, candidates should bear in mind that validations alone are not sufficient for a full testing of the application. Ideally, the plan should test the desired outcomes and success criteria from Identify, as well as showing that the application works.

A number of candidates submitted projects where the design merged with Implementation. Most of these projects were done using MS Access, with design views being mixed in with sketches and screenshots from a completed database. Supervisors who have candidates who take this approach are recommended to look at:

http://www.edexcel-international.com/VirtualContent/49165/Computing_7105_Exemplar_Material_3__A_prototyping_approach_to_coursework.pdf

Implementation

Although most candidates could show that they had some sort of final product, only a minority had good evidence of a production process and very few gave any information about amendments and problems with the implementation. It is rare for the process of making an application to have no problems at all and candidates would gain more marks by acknowledging this.

It is also important that candidates show how their design is being used to produce their application, rather than give a generalised report on how to make a database.

Testing

As has been mentioned in the Design section, testing should show that the objectives and success criteria have been met. Validations are not enough to do this. Candidates should also ensure that all of their planned tests are carried out and that evidence is given of the results. Where the evidence is not shown with the test details, e.g. where the results are in an appendix, care should be taken to cross reference the tests to the results. There were several cases this year where candidates lost marks because the results could not be matched to the tests.

Evaluation

This was often very weak, saying little more than "it worked and my user was very happy with it".

A good evaluation should refer back to the objectives and success criteria and clearly demonstrate that they have been met. It should also look at the parts that have not worked and explain how problems might be solved in the future.

COMPUTING 7105, GRADE BOUNDARIES

Assessment Leader's note
This year, the marks scored by candidates both on Paper 1 and on the projects were significantly lower than in recent years. There has, therefore, been a marked reduction in the grade boundaries. It is worth noting that, despite these reductions in grade boundaries, there were many fewer candidates at Grade A and B this year.

Grade	A	B	C	D	E
Lowest mark for award of grade	55	43	32	27	21

Note: Grade boundaries may vary from year to year and from subject to subject, depending on the demands of the question paper.

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