

# Examiners' Report Summer 2009

GCE

## GCE O Level Computing (7105)

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# GCE O Level Computing - 7105/01

## General Comments

The overall qualifying responses of candidates were slightly down on 2008 but candidates' answers were fuller than in previous years.

Extension sheets did not cause as many problems as in previous years.

## Comments About Individual Questions

### Section A

#### Question 1

(a) Disappointing responses given here as most candidates did not appear to know how files could be structured on a network file server.

(b) (i) Most candidates gave presence check as the correct answer.  
(ii) The better candidates gained the two marks available for a second validation check and an expansion on its use. Weaker candidates gained a mark for the validation check only.

(c) (i) Most students knew how to protect files with passwords.  
(ii) Only the better candidates gave a good description of file recovery. Candidates must be made aware that the recycle bin cannot always be used for data recovery.

#### Question 2

(a) Candidates lost marks here by not giving two suitable hardware items for Internet connections. A computer network card cannot be used for this purpose as many candidates seemed to think.

(b) Most candidates were able to give suitable examples of Internet services.

(c)(i)(ii) Good understanding of the intranet and its possible uses.

#### Question 3

(a) Most candidates were fully aware of network security procedures.

(b) The majority of candidates were also fully aware of the job role of a Network manager. Some however implied he/she was responsible for network fault-finding - this is not the case, as technicians or engineers would perform this duty.

#### Question 4

Only the better candidates could give tasks carried out by an operating system. Some candidates are still confusing this with a 'boot' process.

### Question 5

(a) (b) This question was not answered very well. Quite a few candidates confused modelling with simulation. There is quite a difference between these two processes and they are used in quite different situations.

### Question 6

(a) Most candidates could name two types of software that could be used in an integrated way.

(b) Only the better candidates could give suitable examples that could work in reality.

(c) Most candidates were aware of the benefits of using integrated software packages.

### Question 7

Good responses from most candidates in writing instruction codes.

### Question 8

(a) Most candidates correctly identified a temperature sensor.

(b) Only the better candidates gained the full three marks for an explanation of feedback. Many candidates lost marks by assuming the sensor was carrying out the signal processing.

(c) Few candidates gave a suitable control system for the problem set. Most gained a mark for showing an actuator and for the fact that the microprocessor had some role to play. It was rare to see a system that could function in reality.

## Section B

### Question 9

This type of question is always well liked by candidates and many scored full marks for the database structure associated with the case study.

### Question 10

- (a) Many candidates lost marks here by giving generic answers for 'Adding', 'Deleting' and 'Amending' data without linking the process to the case study.
- (b) Most candidates gave suitable explanation for providing a key filed in the database.
- (c) Few candidates could explain why a single table for owners and vehicles was not a good idea most gained a mark for some reference to being unable to search or sort.

### Question 11

- (a) (b) Good answers by many candidates all showing how they were aware of the process of data transfer. Some lost marks by suggesting satellite links- this would be too expensive and not practical for the situation given in the case study.

### Question 12

- (a) Only the better candidates scored well here and at best scoring 5 of the possible seven marks. The weaker candidates generally scored 2 marks for some mention of the pricing structure used.
- (b) Again only the better candidates could provide suitable answers relating to security problems that could be encountered through online money transactions.

### Question 13

- (a) Most candidates scored four of the available 9 marks here for signal processing. Answers were generally limited to 'the box sending a signal', registering it had received it and carrying out some kind of data check. Few candidates described the loop process to establish a correct signal transfer.
- (b) Only the better candidates realised the vehicle number was used to check for fraudulent use of the road charging system as well as a validation check on black box operations.

## GCE O Level Computing - 7105/02 (Coursework)

The great majority of candidates were able to identify a suitable problem and develop it into a project. A number of the contexts were however somewhat unrealistic, e.g. Computerising a large hotel or a chain of supermarkets. This is allowable but can lead to impossible objectives and success criteria, which in turn makes the project more difficult in its subsequent stages.

It is important that candidates get the right balance when explaining the context of the project. A page or two should be enough. There appeared to be more than the usual number of projects where the candidates had spent far too long in gathering information about a business, only to base their project on a small section of the whole.

Contents pages and / or page numbers remain common. Centres should continue to give firm guidance on this, especially where candidates do not present their projects in the same order as in the specification. The page numbering should apply to all sections of the project, including appendices, separate manuals and any other material extra to the main write up. Page numbers should not be restarted for each section of the write up. Ideally, the project should be presented in the same order as is set out in the specification and coursework guide. Where references are made from work on one page to material on another, care should be taken to get this right.

Appendices continue to be a problem and should be avoided where possible. There are marks for having a clear layout and easy to follow accounts. Markers tend not to award these marks if they have to keep flipping between the main account and the appendices.

Appendices may be appropriate for items such as raw material, original notes, and sets of filled questionnaires.

Appendices are not appropriate for test results, implementation screenshots, or screen designs. These items should be included in the main write up.

Appendices should also not be used for Access code dumps or web site writer HTML dumps. This sort of material should not be included at all unless the candidate can demonstrate that they have made some worthwhile, non-trivial contribution. In which case only the parts written by the candidate should be submitted, with appropriate annotation.

As in previous years, a number of centres are providing their candidates with templates to follow. This is not necessarily a bad thing, since the coursework guide could itself be regarded as being a template. Centres should make sure that any template they use is appropriate and that it enables the candidates to adequately cover the coursework requirements. It was clear that poor templates were causing candidates to lose marks. These templates fell into two categories, over detailed and incomplete.

Over-detailed templates are ones that include not only the main five sections plus some paragraph headings, but also sub paragraphs and in some cases bullet points and content. Centres are reminded that templates should only cover items such as order of work, headings, sub headings and general guidance about style and presentation. Templates should not contain suggested text, blank flow charts, sample screens or any other 'stock' material. A number of candidates lost marks by including such material in their projects.

Incomplete templates are those which do not allow candidates to show their full ability. In too many cases, all the candidates in a centre had worked to a narrow template and had all missed out the same sections.

If supervisors wish to use templates, they are urged to do two things. One, read the coursework guide carefully and two, ensure that the template addresses all the marking points.

A good template should make candidates think for themselves.

As in previous years, the great majority of candidates opted to do a project based on customising Access, although other packages were also used. In most cases, the candidates had obviously produced their final submission by working directly with the package and then had made their design afterwards. Frequently the designs were screen shots from the package and very often they included some of the data. Since the data should not have been entered until the Implementation stage, it made it difficult to award marks under Design in such cases. To compound the problem, candidates who produced this type of project tended to produce a test plan based on their already tested and working system, thus not showing any test and modify procedures.

Prototyping is a valid way of producing a project and can be given full credit under the present mark scheme, but candidates who use the method must ensure that they produce sufficient evidence of the process. There is an example of a Prototyped project on the Edexcel website that provides detailed advice on how such a project should be written up so that candidates may obtain maximum credit for their work:

<http://www.edexcel.com/quals/olevel/7105/Pages/default.aspx>

Test plans should be included in the design section, rather than being left until the project is completed.

As in previous years, many candidates did not provide enough evidence of their work. This causes problems in Design, Implement, and Evaluate. Candidates should be left in no doubt that marks can only be awarded for items that are included in the write up. Markers do not know the candidates and have not seen undocumented work or running software. If a candidate claims to have done something, it is up to them to prove it.

Candidates continue to do poorly in Testing. In far too many cases, candidates only submitted evidence of validations, with no attempt made to demonstrate that the application met the original objectives or success criteria. When actual testing was considered and a test plan had been produced in the Design stage, this section was usually done well, but problems arose when the test plan was only considered after the project had been produced. In such cases, candidates usually only tested correct functioning. Candidates should be reminded that systems are rarely correct at the first attempt and that the process of testing and correcting should be described. Indeed, the correction process must be described in order to reach the higher mark bands.

Where tests had been done and evidence provided, there was too often no linkage between the tests and the evidence. Correct referencing is essential to gain full marks.



Where both component and system / user testing is done, it should be clearly indicated. Many candidates simply combined such testing into one section and made little or no attempt to indicate which test applied to what.

Evaluation was as usual the weakest section. Very few candidates tried to relate their work to the specified outcomes and where they did, it was even rarer for them to produce any evidence to back up their conclusions. In many cases this was a consequence of generalised objectives in the Analysis stage. There must be clear evidence that the objectives given in Analyse has been met in order to gain marks in the higher bands.

Few candidates managed to gain full marks for evaluating the software or the man machine interface. Evidence needs to be provided to reach the higher band marks in each case.

Further development was also weak. Too many candidates decided that they would combine their database with a WAN / website / e-commerce site. Such developments are difficult even for an experienced software engineer, they are almost certainly impossible for the candidate.

## Grade Boundaries - June 2009

7105/01 & 02	A	B	C	D	E
Subject Mark	53	42	32	27	21

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