Examiners' Report Summer 2008

GCE Computing (7105)

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COMPUTING STUDIES 7105, CHIEF EXAMINERS REPORT (2008)

PAPER 1

General Comments

The standard of candidate's answers in Part A of the paper was lower overall this year. Weaknesses were seen in areas of 'System design and development', 'File handling' and 'data logging'. Some good responses were seen however in Part B where candidate's knowledge was applied to the Case Study

Few extension sheets were used this year but candidates are still answering questions outside the designated area. Centres need to encourage candidates to give more concise accurate answers. The marking process becomes more extended as all of this work must be referred to senior examiners for marking

Section A

Question 1

(a) Many candidates were confused by the term 'Copyright' and took it to mean the 'Right to Copy'. It is important that all candidates are fully aware of this legal aspect of software distribution

(b) Poor answers given here because of the inability to understand the term copyright. The term 'Licensing' was hardly used by any candidates

Question 2

(a) Good answers here most candidates were able to give suitable methods of preventing unauthorized access to the network.

(b) The majority of candidates were fully aware of 'access rights'. Few gained the full 2 marks here as they could not expand on the answer or give a second method of protection

Question 3

(a) Some good screen designs were seen and very few candidates asked for signatures this time, although too many had lines to write on rather than input boxes. Few candidates gained the full allocation of marks as there was always some aspect of the scenario missing. The lower ability candidates only gave biographical details with very few user friendly features. The better candidates included user friendly features but not always financial information.

(b) Poor answers here – few candidates could explain the role of a 'Software Engineer.' The better candidates scored two of the available four marks. Most answers were limited to 'Designing software'

(c) Good answers by the majority of candidates. There was familiarity with this aspect of computer of computer crime with candidates being able to match the appropriate prevention method in (ii) with the fraud indicated in (i)

Question 4

(a) (i) Many candidates gave explanations of the term LAN outside the context of the question setting. They were not penalized for this if their understanding of a LAN was clear to the examiner

(II) Good examples of the use of LAN in a hospital context were given by many candidates

(b) (i) Good explanations of the term WAN were given and in the correct context. Many candidates lost marks by rewriting the question. e.g. A wide area network is a network that covers a wide area.

(ii) Good examples of the use of WAN in a hospital context were given by many candidates.

(c)(i) (ii) Most candidates struggled with the term 'intranet' and were not able to give a clear indication of what it was or what it could be used for. Many likened it to a LAN and could not explain the protocols required to set one up

Question 5

(a) Good responses by the majority of candidates scoring two out of the three available marks

(b)(c) Poor answers from the majority of candidates. Few candidates were conversant with computer systems development. The better candidates gained one mark of the available three in each section of this question. Most candidates gave answers in terms of research being carried out rather than the problem being specified.

Question 6

(a) Poorly answered by many candidates. Very few could explain the process of 'record locking' when applied to transactions of the type seen in this question. Most talked about the seat being sold to the first customer to complete the transaction.

(b) Good responses from the majority of candidates

(c) Poor responses given in general. Many candidates talked about paper based methods of tracking the number of times a supporter attended matches. Some realised there was a link to the card but could not explained how the attendance was monitored by the computer system

Question 7

a) Most candidates could suggest examples related to this system of data logging but a significant number gave answers completely unrelated to the hospital patient setting, e.g. weather forecasting.
b) As in a) some good responses seen but many were not related to the setting given in the question.
c) Poorly answered by the majority of candidates. Most would only show a sensor connected to a CPU. Few gave a full system that showed how the sensor information was processed and then stored

Section B

Question 8

(a)(i)(ii) Only the better students gained marks here. Of these most got a mark from part (i) but few could give enough information to score two marks in (ii). Only general responses were given. It was clear that many candidates had not considered the information given in the case study.

(b) Poor responses in this section. Some candidates responded incorrectly by asking about the manual system and not information required for the computerised version. Others gave vague or generic answers such as what the user requires or how the system will be used.

Question 9

Well answered by most students many gaining full marks even the weaker candidates gained six out the available 12 marks

Question 10

(a) Again good responses from the better candidates. Few gained the full 3 marks as the 0 score was often overlooked.
(b) Poorly answered. Most candidates missed the idea of searching for a form and scores >0. Both here and in 10a some candidates talked about spreadsheets when the question was related to a database.

Too many candidates simply rearranged the question and gave answers along the lines of they could make the database give a report for class 1B and put it in alphabetical order.

Question 11

(a) Good responses from some candidates. But many failed to get all six marks available. Three marks was the norm usually related to students in rows, events in columns and some totals shown

(b) Few candidates gave satisfactory responses here. Most seemed unaware of the COUNT function applied to spreadsheets although marks were gained for a suitable IF function which used the result of an incorrect method of counting the crosses.

Question 12

(a) Good responses here with the majority of candidates gaining the two marks allocated.
(b) As in (a) candidates responded well to this question and could show they were conversant with the better attributes of both packages

Question 13

(a) Candidates made a good attempt at this final question. There were many instances when the better candidates gained five of the available eight marks. Most candidates could show a sensor linked to a computer in some way and an ADC unit being correctly used. Few could explain the process for starting and stopping the timer correctly and the way in which time was stored on the system

(b) Many candidates gained one of the available four marks. This related to the common answer of two runners finishing at the same time. Fewer could expand this answer but a significant number of those who did identify the problem also offered a suitable solution to overcome it.

Chief examiner's report 7105 Paper 2 (Project)

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 was good to see that contents pages and / or page numbers have become more common. Centres should continue to give firm guidance on this, especially where candidates do not write up 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 which is in addition 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.
Appendices 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 should not be used for test results, implementation screenshots, or screen designs. These items should be included in the appropriate sections of the main write up.
They should also not be used for Access code dumps or web site writer HTML dumps. In fact this sort 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 obviously 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 however make sure that any template they use is appropriate to the task and that it enables the candidates to adequately cover the coursework requirements. Once again it was clear that some templates were causing candidates to lose considerable amounts of marks. Poor 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 such things 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, whole centres of candidates had worked to a prescriptive template and as a result, 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 and makes candidates think for themselves.

As in previous years, the great majority of candidates opted to do a project based on customising a software package. Access was a particular favourite but other packages were also used. In the great majority of such cases, the candidates had obviously produced their final submission by working directly with the package and then had produced their design from the final version. 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 an application in this way 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.   www.edexcel-international.org   This gives detailed advice on how such a project should be written up so that candidates may get maximum credit for their work.

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

As in previous years, 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.

Testing continues to cost candidates dearly. 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 frequently a lack of 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 / web site / e-commerce site. Such developments are difficult even for an experienced software engineer, they are almost certainly impossible for the candidate.

7105	A	B	C	D	E
Subject Mark	53	42	32	27	21

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