



## **General Certificate in Education**

# **Computing 2510**

**COMP2      Computer Components, The  
Stored Program Concept and The  
Internet**

## **Report on the Examination**

*2010 examination – June series*

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## General

This is the fourth time that COMP2 has been examined and candidates are getting used to both the format and especially the topics that are new to this specification. The questions on logic diagrams and Boolean logic were answered much better than in previous exam sessions. There is still a tendency for candidates to revise previous question papers and then attempt to answer a question from one of these rather than the one that is in front of them. Once again I would refer to the advice that candidates should 'read the question' and then answer what they have read.

### Question 1

Similar questions about hardware and software categories have been asked before. Definitions of what is hardware and software were both well known, although there was a substantial minority of candidates who thought that hardware was confined to peripherals. Software was slightly less well described as we were looking for two linked points that included a 'sequence of instructions' and that they would 'run' on the hardware. Often candidates omitted one or the other of these points. The table about classes of software was generally well answered and for once few brand names were used.

### Question 2

This question concerned the HTTP and HTTPS protocols and for the first time included questions about the use of ports. The former parts were answered very well with the question about the difference between HTTP and HTTPS being especially well described. However, the same cannot be said about the other two parts of the question on ports, which is a new topic. These were answered very poorly with only a very few candidates gaining full marks. The answers given were often vague and, on the whole, this showed that this part of the specification was not at all well known.

### Question 3

The question asked candidates to describe the three labelled parts of a URL. Surprisingly this was also not very well answered – at least in terms of candidates gaining full marks. The idea of a protocol and the file and pathname were usually well known but the middle part was rarely seen to be correct. Answers to part C often failed to gain a mark because the candidates gave either the file or the path, but not both parts of the expected answer and so did not gain credit for half an answer.

### Question 4

This question covered biometric properties and RFID use. It is a question that has not been asked before and this often showed in the answers offered. What the term biometric property means was frequently answered with ideas that were either not biometric or not unique, especially when the candidates attempted to answer the second part of the question in the first part of the answer. When asked to give an example of such a property many more gained credit – but there were still far too many that included ideas such as passport numbers or National Insurance numbers etc. When asked how the RFID tag could be read at an airport many appeared to think the tag in the passport initiated the whole process rather than the reader. Some candidates seemed to be answering a question that was not asked by simply listing what data might be held on the tag.

**Question 5**

Most candidates were able to match the storage devices to their uses, successfully. However some candidates included devices that were not in the list on the question paper in their responses, thus losing marks by not reading the question.

**Question 6**

This question asked about robotics from a different point of view from previous papers. The two parts were clearly linked and reasons given in the second part had to relate to the task identified in the first. On some occasions candidates gave general reasons for why a robot might be used that did not relate to their example and so did not gain credit. Others gave examples that were not suitable for completion by robots and so lost all of the available marks.

**Question 7**

This question covered another aspect of computer hardware, the fetch-execute cycle, and why programs are written in high level languages. The table was correctly completed in the majority of cases with the labelled parts of the processor. However some answers simply gave the acronyms rather than the full names of the registers, which the question had clearly asked for. Questions about the 'decode and execute' parts of the cycle have not been asked before and this showed in the answers with many candidates describing the fetch part of the cycle and not what was asked. The part of the question concerning why programmers prefer instructions in hexadecimal compared to binary was often answered by saying it takes less storage space which clearly it does not. The answer to the question about the program translator was almost universally well known. When answering the final part, worth three marks, about why programs are written in a high level language, candidates often gave only two reasons and so automatically failed to gain one mark. Answers stating that it is, 'like English,' were simply not enough and were marked accordingly; candidates needed to add to this to gain a mark.

**Question 8**

This question gave a labelled figure of HTML tags and asked candidates to write the missing tags. Many were able to gain full marks. Where marks were lost was usually in the last two parts of the answer. However it was not unusual to see `<ol> </ol>` instead of `<ul> </ul>` showing that candidates had not appreciated the difference between an ordered and unordered list.

**Question 9**

The question about Boolean logic, truth table and logic diagrams was answered much better than in previous years. This may be because the parts concerning drawing a logic diagram and simplifying a Boolean equation were a little more straightforward than those which had previously been asked. The truth table for an OR gate was completed more accurately than that for an EOR gate. The logic diagram often gained three marks and for the first time it was usual to see just three components drawn in the diagram rather than a whole series of unnecessary symbols. The shapes of some of the symbols were far from ideal but those that were nearly there were accepted rather than rejected. The hardest part of the question, simplifying the Boolean expression, was also the one that gained least marks. It was however gratifying to see that on the whole it was answered far better than similar questions in previous years. Candidates often left out the intermediate step we required and this was where most marks were lost. There were still some candidates who made no attempt at this question.

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**Question 10**

Knowing what an ID selector, value and property are is another question that has not been asked before. It was therefore pleasing to see that on the whole this was answered well. Where candidates fell down was usually by not labelling the ID selector correctly. The other part of the question concerning type and class selectors was far less well known and generally very poorly answered with often vague descriptions that gained no marks. It is the first time this has also been asked and candidates clearly did not know the difference between a type and a class selector. Some answers did not even relate to the question and were referencing OOP classes in the answers.

**Question 11**

This is the question that also concerns quality of English and was asked around DRM (Digital Rights Management). The ideas about protecting copyright/preventing copying and ensuring artists get paid for their work were well known as were the opposite ideas of problems making legal backups, and not being able to play the items on a range of hardware/software platforms.

Many answered a different question i.e. how DRM works. There were many references to the fact that DRM infringes human rights! This was another example of some candidates not reading the question as many answered with reference to software rather than music/video DRM.

There were many answers arguing that using DRM puts up the cost of the purchased media but this was usually stated in a vague manner. There was also much philosophising about theft and 'right and wrong', but candidates often stated that if you could not afford it (the music or video) then you should get it for free.

**Mark ranges and award of grades**

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