



**COMPUTER SCIENCE  
HIGHER LEVEL  
PAPER 3**

SPECIMEN PAPER (1)

1 hour

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**INSTRUCTIONS TO CANDIDATES**

- Do not turn over this examination paper until instructed to do so.
- Answer all questions.

Answer **all** questions.

1. Outline the meaning of the following terms.

(a) *cookie* [2 marks]

(b) *slack file space* [2 marks]

2. Companies who recycle their computers by selling them on to someone else will aim to erase all data on their hard drive. However, this may not always be successful.

(a) Outline how formatting the disk may not in fact achieve this aim. [4 marks]

(b) Outline the possible effects on privacy if all of the data is **not** erased. [4 marks]

3. In the training exercise, John focused on securing the hard drive of the suspect's computer.

Explain why other file evidence may have been missed in concentrating solely on the hard drive. [6 marks]

4. Discuss the methods used by criminals to hide or disguise certain files. For each method, identify the countermeasures that can be taken by a computer forensic scientist. [12 marks]

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SPECIMEN PAPER (2)

1 hour

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**INSTRUCTIONS TO CANDIDATES**

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- Answer all questions.

Answer **all** questions.

1. (a) Outline the meaning of *MAC times*. [2 marks]  
(b) Identify **two** characteristics of a *bit-stream image*. [2 marks]
  2. In the training exercise, John's first action was to switch the computer off.  
(a) Describe the consequences of this action and whether other actions should have been taken first. [4 marks]  
(b) Describe **two** items that should be looked for in a physical search of the surrounding area. [4 marks]
  3. Explain how investigation of the File Allocation Table (FAT) and the root directory can be used to uncover data from previously deleted files. [6 marks]
  4. The investigation has led to legal action being taken against the owner of the computer. Illegal images were found and the case taken to court. Discuss, with examples, the importance of following correct procedures during the investigation so that all the evidence would be accepted by the court. [12 marks]
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