

**Computer science**  
**Higher level**  
**Paper 3**

Monday 8 May 2017 (morning)

1 hour

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**Instructions to candidates**

- Do not turn over this examination paper until instructed to do so.
- A clean copy of the **computer science case study** is required for this examination paper.
- Read the case study carefully.
- Answer all questions.
- The maximum mark for this examination paper is **[30 marks]**.

Answer **all** questions.

1. Outline the advantages that diagnostic systems based on fuzzy logic have over previous systems which relied on rules and boolean logic. [4]
  
  2. Explain how NFC and RFID have made it possible for some chronically ill people to be cared for at home rather than in hospital. [4]
  
  3. (a) Outline the importance of **interoperability** in electronic health records, and any issues it presents. [4]  
  
(b) Discuss the advantages and disadvantages of electronic health records. [6]
  
  4. Current and future technologies are likely to have a dramatic effect on the medical profession. By explaining the modern advances in technology, discuss the changes which doctors and surgeons may face in the future. [12]
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