

BCS THE CHARTERED INSTITUTE FOR IT

**BCS HIGHER EDUCATION QUALIFICATIONS
BCS Level 5 Diploma in IT**

PROFESSIONAL ISSUES IN INFORMATION SYSTEMS PRACTICE

Wednesday 30th September 2015 – Afternoon
Answer FOUR questions out of SIX. All questions carry equal marks.
Time: TWO hours

**Answer any Section A questions you attempt in Answer Book A
Answer any Section B questions you attempt in Answer Book B**

The marks given in brackets are **indicative** of the weight given to each part of the question.

Calculators are NOT allowed in this examination.

Section A

Answer Section A questions in Answer Book A

- A1. a) Briefly explain the difference between the purpose of a **Code of Conduct** and a **Code of Practice**. **(5 marks)**
- b) The BCS **Code of Conduct** is divided into four sections; list these sections individually and give a brief explanation of the purpose of each. **(4x5 marks)**
- A2. The Data Protection Act 1998 lays down eight data protection principles. The first of these says, in essence, that personal data shall only be processed fairly and lawfully and subject to the data subject's consent.
- a) Briefly state the other seven principles. [You do not need to number them.] **(7x2 marks)**
- b) In each of the following situations, one or more of the data protection principles is probably being violated. In each case, state which data protection principle is in danger of being violated and briefly explain why.
- i) In order to get a ticket allowing you to use the public library, a city council asks for various information including whether you are married or not. **(3 marks)**
- ii) Your local hospital holds the medical records of patients in a filing system that is not password protected. **(3 marks)**
- iii) Your dentists hold dental records and personal information relating to patients in a computer-based system for use in their practice. They belong to a religious sect based in Pontevedro, a country outside the European Economic Area, and they send copies of their patients' personal details to the headquarters of the sect so that the sect can send evangelical material to them. **(5 marks)**

Turn over]

- A3. a) Briefly describe the FIVE main characteristics of the **bureaucratic organisational model**. **(5x3 marks)**
- b) The UK Ministry of Administrative Affairs has decided to outsource its IT operations to the commercial company MegaData plc. As part of the agreement, all the Ministry's IT staff are to be transferred to MegaData. What legal rights do the staff have in this situation? **(10 marks)**

Section B

Answer Section B questions in Answer Book B

- B4. a) Augusta Software Ltd bought a file server for £15,000. Its depreciation policy for computer hardware is to write assets off over five years using straight line depreciation. In the event, after three years, it was decided to dispose of the file server and it was sold for £3,000.
- Explain in detail what effect the disposal will have in Augusta's annual accounts. **(12 marks)**
- b) Employees of Augusta work a five day week. They are entitled to 20 days holiday a year in addition to public holidays. On average, each employee loses ten working days per year through sickness and other problems. Augusta aims to allow each employee 15 days per year for training. Experience shows that employees spend an average of five days a year unproductively, as a result of scheduling problems. In accordance with government regulations, employers must pay social security contributions equal to 6% of salary.
- If an employee earns £30,000 per year, calculate the average direct cost of one day's work from that employee. State explicitly any assumptions you make. **(13 marks)**
- B5. a) Compare and contrast the protection that **copyright** and **trademarks** can provide for the developer of software designed to provide real-time control data. **(12 marks)**
- b) The application controls the operation of a machine from which the real-time data is obtained. What additional protection would a patent provide? **(6 marks)**
- Explain very briefly what has to be done to apply for a patent. **(7marks)**
- B6. a) Explain the purposes for which, under the UK Regulation of Investigatory Powers Act 2000 and the associated regulations, organisations that provide computer and telephone services can monitor and record communications without the consent of the users of the service. **(16 marks)**
- b) Explain the terms **mere conduit**, **caching** and **hosting** as they apply to the possible roles of internet service providers. **(9 marks)**