



**INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY
STANDARD LEVEL
PAPER 2**

Tuesday 15 May 2001 (morning)

2 hours

INSTRUCTIONS TO CANDIDATES

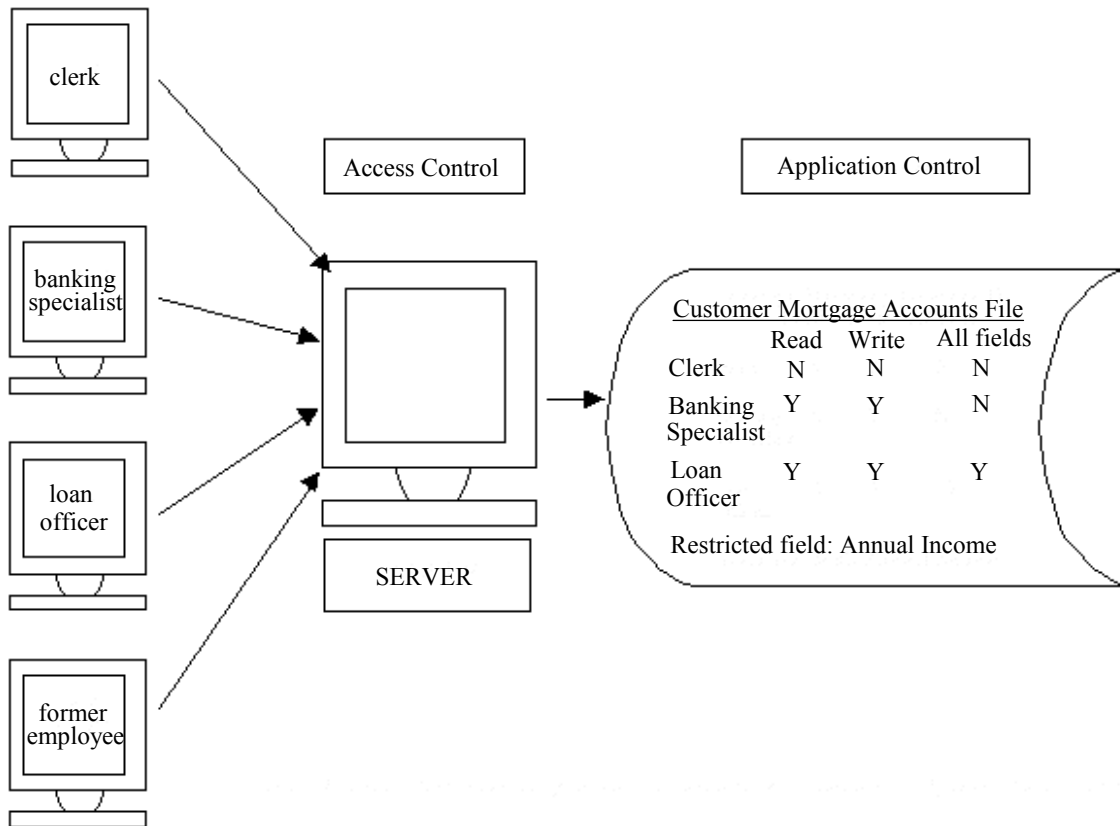
- Do not open this examination paper until instructed to do so.
- Answer Section A and two questions from Section B.

SECTION A

Answer **all** parts of the question.

Security at the Loan Company

- This diagram illustrates the data security used by the Loan Company for its mortgage loan system. The system requires all employees to provide an authorised password when logging on. Therefore, a former employee whose password has been deleted would be unable to access the system at all. A clerk would be able to access the system but not the mortgage account files. A banking specialist could access mortgage account data but would be restricted from viewing the Annual Income field. A loan officer, however, would be able to view all the data.



[Source: *Business Information Systems*, K. Laudon & J. Laudon, Dryden Press (1991)]

- Outline **two** security features of the system that controls access to the Server (other than providing an authorised password to log on). [2 marks]
- State **two** situations in which data contained in the mortgage account files must be changed. [2 marks]
- Describe **two** ways in which organisations keep data secure. [4 marks]
- Discuss **four** social and ethical factors managers should consider when establishing IT policies for an organisation. [12 marks]

SECTION B

Answer **two** questions. Up to **two** additional marks are available for the quality of construction of each of your answers.

2. Doctors, hospitals and medical institutions record patient information into databases.
- (a) Outline **two** types of information which could be regarded as confidential in a medical database. [2 marks]
 - (b) Describe **two** methods which could be used to ensure that only authorized people can access the database. [4 marks]
 - (c) Discuss and evaluate **three** social consequences which have emerged as a result of recording patients' medical information in databases. [12 marks]
3. Consumers can increasingly buy a wide range of items on the Internet.
- (a) State **three** types of information the buyer needs to provide to the on-line store in order to make a purchase. [3 marks]
 - (b) Outline **three** ways in which consumers can find Web addresses for an item which they wish to purchase on-line. [3 marks]
 - (c) Discuss and evaluate **three** social consequences which have resulted from the increase in on-line purchasing. [12 marks]
4. A company uses a variety of application software from different suppliers. Each package has a different user interface. The company is considering changing its software to one supplier and to a common graphical user interface (GUI).
- (a) Define a graphical user interface. [2 marks]
 - (b) Explain **one** reason why the company might want to change its software to one supplier and explain **one** reason why a GUI is preferred. [4 marks]
 - (c) Discuss and evaluate **three** social **and/or** ethical consequences that the company must take into account before purchasing any new software. [12 marks]

5. Cellular phones are portable communications devices which are now used for a range of services.
- (a) Outline **two** communication services, other than telephone conversations, which are available through cellular phones. *[2 marks]*
 - (b) Describe **two** policies which an organisation might implement regarding the use of cellular phones. *[4 marks]*
 - (c) Discuss and evaluate **three** social **and/or** ethical impacts that could result from the widespread use of cellular phones. *[12 marks]*
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