

General Certificate of Education

Information Technology Advanced

Module IT05

Information Management and Manipulation:

Policy, Strategy and Systems

Module Test

Time

- 2 hours

Information for candidates

- Answer all the questions on this paper
- The number of marks is given in brackets at the end of each question or part question
- Question 10 should be answered in continuous prose. Quality of language will be assessed in this answer.

Answer all questions

- 1 State **three** issues that should be included in an Employee Code of Conduct. (3)
- 2 Describe **one** advantage and one limitation of distributed database systems. (4)
- 3 Software houses often produce maintenance releases during the life of a product.

Describe **three** different types of circumstances for which a maintenance release is required. (6)
- 4 Parallel transmission is generally used for the connection of peripherals such as printers and scanners, whilst serial transmission is often used for communication within large-scale networks.

(a) Define the terms:

(i) parallel transmission
(ii) serial transmission (4)

(b) State **two** reasons why parallel transmission is **not** suitable for large scale network communications. (4)
- 5 Wide area networks have enhanced communication, both within companies and with their customers.

Describe three different facilities that have been made possible by existence of these networks. (6)
- 6 A composer has decided to invest in a music software package to aid his productivity. He already uses a generic office package and is competent in its use. Both software packages operate with a Graphical User Interface (GUI).

(a) Describe **two** features of his PC hardware that will be necessary in order for the GUI to operate effectively. (4)

- (b) Describe **three** features that are likely to be present in the music software package that will **not** be present in the generic office package. (6)
- 7 A large car dealer has a small computer network within its showroom, with a link to the main supplier's network. The server for the dealer's local area network is located within one of the sales offices. Backups are taken daily, and a sequence of tapes is used to store the information. The tapes are stored in full view of anyone in the office. Some of the information is sensitive, for example, customer personal details. Several people use the office, but no one person is responsible for the backup.
- (a) Describe **two** possible problems with managing the backup process in this way. (4)
- (b) Suggest **three** factors that the car dealer should consider in order to improve its backup process. Give reasons for **each** of your suggestions. (6)
- (c) Give **two** additional factors that would have to be considered by an organisation whose information system has to provide a continuous service. (2)
- 8 For each of the examples given below state, with reasons, **three** features that you would expect **each** of the following human computer interfaces (HCI) to have..
- (a) HCI for a machine tool operator in a factory which, for example, produces car parts (6)
- (b) HCI for a graphic designer, for example, someone who produces artwork for publication in magazines. (6)
- 9 (a) A school IT co-ordinator wants to upgrade the school network computer network, which consists of a large number of workstations and two servers, all of which are at least three years old. The operating system (OS) is over five years old.
- State **five** reasons she could give to her senior management that would reinforce her case for upgrading. (5)

(b) She has the choice of either using an established network OS, or taking part in the first phase of trailing a new one. She chooses the established network OS.

(i) State **two** reasons why she might do this. (2)

(ii) Describe **two** benefits that a software manufacturer gets from the customer trailing a new OS before it is generally available. (4)

10 A company that specialises in selling bicycles, spares and related items is considering having a website that will allow customers to order on-line. It already uses a relational database to keep records of customers, stock and orders.

As an ICT consultant, you have been approached to assess the viability of several administrative software solutions.

Discuss how you would help the company decide on a suitable software solution. Your discussion should include:

- What you need to find out in order to carry out this assessment.
- The evaluation criteria that you would consider using.
- The content of the report that you With the aid of examples describe three factors, other than you would produce to show the results of your evaluation.

Quality of language will be assessed in this answer. (20)