

General Certificate of Education
January 2007
Advanced Level Examination



INFORMATION AND COMMUNICATION TECHNOLOGY ICT5
Unit 5 Information: Policy, Strategy and Systems

Monday 29 January 2007 1.30 pm to 3.30 pm

For this paper you must have:

- a 16-page answer book.

Time allowed: 2 hours

Instructions

- Use blue or black ink or ball-point pen.
- Write the information required on the front of your answer book. The *Examining Body* for this paper is AQA. The *Paper Reference* is ICT5.
- Answer **all** questions.
- Do all rough work in the answer book. Cross through any work you do not want to be marked.

Information

- The maximum mark for this paper is 90.
- The marks for questions are shown in brackets.
- The use of brand names in your answers will **not** gain credit.
- Question 9 should be answered in continuous prose. In this question you will be marked on your ability to use good English, to organise information clearly and to use specialist vocabulary where appropriate.

Answer **all** questions.

1 List **four** topics that should be included in an organisation's backup strategy. (4 marks)

2 A company needs a new Database Management System (DBMS).

(a) What is the purpose of a DBMS? (3 marks)

(b) The company is considering several different DBMS software packages.

What procedures should be followed when evaluating the software packages? (3 marks)

3 (a) Give **three** ways by which data can be transferred successfully between different applications on the same computer system. (3 marks)

(b) Describe **two** ways by which files can be transferred successfully between different computer systems. (4 marks)

4 (a) Security problems can arise when using computer networks.

Name **two** methods of protecting the security of a computer network, and describe how each one protects the network. (4 marks)

(b) Network accounting software records network usage data.

Give **three** items of network usage data which may be recorded and, for each one, describe how the network administrator may make use of it. (6 marks)

5 The design of interfaces for human/computer interaction needs to take psychological factors into account.

Using a different example for each one, describe how the following might be of benefit to the user:

(a) providing short cuts for experts; (3 marks)

(b) giving assistance to novices; (3 marks)

(c) making use of human long-term memory. (3 marks)

- 6 A software house produces a maintenance release for its spreadsheet software.
- (a) Explain **three** reasons why this maintenance release may have been needed. (6 marks)
 - (b) Describe **one** way in which this maintenance release could be distributed. (2 marks)
- 7 A company needs new software for a specialist application.
- (a) Name **three** ways of providing a software solution for a specialist application and, for each one, give a drawback of providing the software in that way. (6 marks)
 - (b) Describe **three** criteria for selecting a software solution for a specialist application. (6 marks)
- 8 Information systems make use of user interfaces of different types.
- (a) Give **three** features of a Graphical User Interface (GUI). (3 marks)
 - (b) Name **two** different system resources and, for each one, give a reason why it may be affected by the demands of a GUI. (4 marks)
 - (c) Give **one** example of where a menu driven interface could be used. (1 mark)
 - (d) Describe **three** characteristics of a menu driven user interface. (6 marks)
- 9 You are employed as an ICT consultant to an expanding tyre-fitting company. The company is planning to operate nationally and is setting up new centres across the country. Your task is to advise on a computer network to connect the centres, and on the best method of storing and providing access to the company's data.

Write a report for the owners of the company, paying particular attention to:

- the advantages of computer networks
- the nature and advantages of a distributed database
- the nature and advantages of a client-server database.

The quality of written communication will be assessed in your answer. (20 marks)

END OF QUESTIONS

There are no questions printed on this page