General Certificate of Education
January 2005
Advanced Level Examination

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

INFORMATION AND COMMUNICATION TECHNOLOGY **ICT4**
Unit 4   Information Systems within Organisations

Monday 24 January 2005   9.00 am to 11.00 am

In addition to this paper you will require:
  a 16-page answer book.

Time allowed: 2 hours

Instructions
- Use a blue or black ink or ball-point pen. Use pencil only for drawing.
- Write the information required on the front of your answer book. The *Examining Body* for this paper is AQA. The *Paper Reference* is ICT4.
- Answer **all** questions.

Information
- The maximum mark for this paper is 90.
- Mark allocations are shown in brackets.
- The use of brand names in your answers will **not** gain credit.
- You are reminded of the need for good English and clear presentation in your answers. Question 10 should be answered in continuous prose. The Quality of Written Communication will be assessed in this answer.

ICT4

Answer **all** questions.

1 Management Information Systems (MIS) are used by managers at different levels in an organisation.

   (a) What is an MIS?   *(2 marks)*

   (b) Using an example, state how a high-level manager, such as a Managing Director, could use an MIS.   *(2 marks)*

2 Describe **three** factors that can influence an information system within an organisation that should be considered when writing a Corporate Information Systems Strategy.   *(6 marks)*

3 Failure of a Management Information System (MIS) can sometimes be caused by a lack of communication between management, users and the development team.

   Give **three** factors, other than lack of communication, that might cause an MIS to fail.   *(3 marks)*

4 (a) Explain what is meant by an IT *Code of Practice*.   *(3 marks)*

   (b) Responsibilities of the employees when using the company's hardware is one topic usually included in a Code of Practice.

        Describe **two** other topics that should be included in a Code of Practice.   *(4 marks)*

5 (a) Describe **three** ways in which training may be provided for users of ICT systems.   *(6 marks)*

   (b) Describe **three** ways in which support may be provided for users of ICT systems.   *(6 marks)*

6 When buying at an on-line store on the Internet, customers access the stock control and ordering systems of the company from which they are buying.

   (a) Within this context and using an example for each one, describe **three** characteristics of good information.   *(6 marks)*

   (b) Good information is vital to both the company and its customers.

        (i)   State **two** benefits to customers of the company using good information.   *(2 marks)*

        (ii) State **two** benefits to the company of having good information.   *(2 marks)*

7 (a) A college has purchased a multi-media package with a licence agreement that allows up to 40 users at any one time. The college network has over 200 machines for student use.

Describe **one** way of installing this package to ensure that the college does not break this licence agreement. *(2 marks)*

(b) Describe **two** other actions that the college could take to control the installation of unauthorised software on the college network. *(4 marks)*

8 A local authority has sent out a questionnaire to every household to identify their leisure requirements. The answers will be processed by a Management Information System and the results presented to managers.

(a) Some answers are given numeric codes; other answers are in free text.

Give **two** problems that might occur when entering the free text answers. *(2 marks)*

(b) Name **three** data capture methods that the local authority could use for entering the data collected on the questionnaires, and state why each is suitable. *(6 marks)*

(c) Describe an effective method of presenting the information produced. *(2 marks)*

9 A medical practice, in an area prone to flooding, has carried out a risk analysis and is now preparing its disaster recovery plan. The main elements of its ICT system are the patient records and prescription systems, and the network used to access and maintain them.

(a) Explain what is meant by *risk analysis*. *(3 marks)*

(b) State **two** different potential threats to **this** ICT system, and describe a counter-measure for each one. *(6 marks)*

(c) Name **three** criteria that the medical practice should consider when preparing a suitable disaster recovery plan. *(3 marks)*

10 When an organisation develops a large information system several teams may be used.

Discuss how ICT development projects should be organised to ensure successful outcomes, paying particular attention to the following topics:

- the use and organisation of ICT teams;
- the characteristics of successful ICT teams;
- the use of formal methods for the development of information systems.

The Quality of Written Communication will be assessed in your answer. *(20 marks)*

END OF QUESTIONS