General Certificate of Education
June 2003
Advanced Level Examination

AQA
ASSESSMENT and
QUALIFICATIONS
ALLIANCE

INFORMATION AND COMMUNICATION TECHNOLOGY   ICT4
Unit 4 Information Systems within Organisations

Monday 16 June 2003   Morning Session

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 9 should be
  answered in continuous prose. The Quality of Written Communication will be assessed in this answer.

Answer **all** questions.

1 The introduction of an information system is likely to result in changes to an organisation.

State **three** factors that will need to be managed to ensure a smooth period of change. *(3 marks)*

2 (a) Describe what is meant by a *management information system* (MIS). *(2 marks)*

(b) Explain why an organisation would implement an MIS. *(3 marks)*

3 With the aid of an example, state what is meant by *informal information*. *(2 marks)*

4 (a) In a system development life cycle, describe the need for:

   (i) clear timescales; *(2 marks)*
  (ii) agreed deliverables; *(2 marks)*
 (iii) approval to proceed. *(2 marks)*

(b) Explain why projects are often sub-divided into tasks and allocated to teams. *(3 marks)*

5 (a) Explain what is meant by a *code of practice*. *(3 marks)*

(b) Give **one** element that could be included in a code of practice, and describe the benefit that a company would gain from it. *(3 marks)*

6 Companies rely on their information systems to provide good quality information.

(a) Identify **three** different categories of users of information systems, and state the level at which they operate. *(6 marks)*

(b) Describe **four** characteristics of good information. *(8 marks)*

7 Organisations that operate ICT systems have to comply with the relevant legislation. Most have procedures to ensure that this happens.

(a) Describe **three** methods of enforcing and controlling data protection legislation within an organisation. *(6 marks)*

(b) Describe **three** methods of enforcing and controlling software misuse legislation within an organisation. *(6 marks)*

(c) Describe **three** methods of enforcing and controlling health and safety legislation within an organisation. *(6 marks)*

8 A large medical centre, with three doctors and community health clinics, is introducing an ICT based display system. The new system will give patients general information about the different surgery and clinic times, and who is on duty. There will be display screens in the foyer and in each waiting area. The system will be controlled by a PC which is to be connected to the medical centre network.

The centre's main reception team will be responsible for operating this new system. The receptionists' role does not currently entail any computer work.

(a) Describe **two** different ways of collecting the data on which the information to be displayed will be based. *(4 marks)*

(b) The receptionists will require training in the use of this new system so that they can provide useful information to the patients.

Describe **three** ways in which the training could be provided. *(6 marks)*

(c) The system may also be used to display urgent messages.

Give an example of **one** such use, and describe **one** safeguard which should be present to prevent the misuse of this feature. *(3 marks)*

TURN OVER FOR THE NEXT QUESTION

9 The expansion of e-business using the Internet in the past few years has led to more businesses including this medium for their operations. In the absence of a regulatory body to police the Internet, the ICT and computing industry must regulate itself.

Using **specific examples**, discuss this statement. Include in your discussion:

- why regulation might be required;
- the issues in devising regulation across a world-wide medium;
- the potential problems in enforcing regulation.

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

END OF QUESTIONS