

General Certificate of Education
January 2003
Advanced Level Examination



INFORMATION AND COMMUNICATION TECHNOLOGY ICT4
Unit 4 Information Systems within Organisations

Wednesday 22 January 2003 Morning Session

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

Time allowed: 2 hours

Instructions

- Use 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 trade 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 Information is communicated at three levels within an organisation.

State these **three** levels. *(3 marks)*

2 Describe what is meant by the following terms, and give an example of each:

(a) *a data processing system;* *(3 marks)*

(b) *a management information system.* *(3 marks)*

3 Company management sometimes introduce new information and communication systems, giving little advance notice to their staff. This may contribute to the failure of these systems and cause other problems for their staff.

(a) State **six** factors that may cause the failure of a system that has been introduced too quickly. *(6 marks)*

(b) Describe **three** problems that staff might encounter in this situation. *(6 marks)*

4 The owner of an independent driving school, which employs six instructors, decides to get a local software house to write a bespoke package to manage client information, including the booking of lessons, the tracking of progress, and the recording of payments.

(a) Identify **two** different potential users of this system. *(2 marks)*

(b) With the aid of examples, describe the different levels of information that each of these two users might require. *(6 marks)*

5 Describe, with the aid of examples, **three** different methods of providing training in the use of software, and justify their use. *(9 marks)*

6 Large organisations often run their own system development projects, collecting a number of suitably skilled people together to form the development team.

Describe **four** characteristics of a good ICT development team. *(8 marks)*

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- 7 Discuss the social, moral and ethical issues for a professional working within the industry that might arise when introducing and using information and communication systems. (6 marks)
- 8 A growing organisation has realised that so far they have been lucky in that their information systems have not failed. Before they expand their business operational reliance on ICT, they have been advised by their insurer to carry out a risk analysis and then plan what to do next.
- (a) Explain what is meant by *risk analysis*. (3 marks)
- (b) State **three** different potential threats to an information system, and describe a counter-measure for each one. (9 marks)
- (c) Describe **three** of the criteria that could be used to select a disaster contingency plan. (6 marks)
- 9 Puregreens, a retailer of organic vegetables, has recently launched a marketing website. The e-mail response from the “contact us” button has been overwhelming, so they are thinking of expanding into selling on-line.

Discuss the implications of this, paying particular attention to the following:

- methods of data capture that will be available for on-line or off-line payment;
- the control and audit issues associated with this method of selling;
- the information needs of the management of this system;
- the additional information that might be generated.

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

END OF QUESTIONS