

General Certificate of Education
January 2002
Advanced Subsidiary Examination



INFORMATION AND COMMUNICATION TECHNOLOGY ICT1
Unit 1 Information: Nature, Role and Context

Thursday 10 January 2002 Morning Session

In addition to this paper you will require:
a 12-page answer book.

Time allowed: 1 hour 45 minutes

Instructions

- Use blue or black ink or ball-point pen. Pencil should only be used 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 ICT1.
- Answer **all** questions.

Information

- The maximum mark for this paper is 70.
- Mark allocations are shown in brackets.
- You are reminded of the need for good English and clear presentation in your answers.

Answer **all** questions

1 Explain, using examples, the following terms as they are applied within ICT:

(a) *Data*; (2 marks)

(b) *Information*; (2 marks)

(c) *Knowledge*. (2 marks)

2 Professionals involved with ICT systems often have to work with people who have little, or no, understanding of the ICT systems that they are using.

State **two** personal qualities that IT professionals should have that will enable them to help such people effectively, and give an example of when each quality would be needed. (4 marks)

3 When ordering goods by telephone many companies ask the purchaser for his or her postcode. They then use this to confirm the address of the purchaser by looking up the postcode in a database of codes.

Explain **two** reasons why companies prefer to buy a database of postcodes rather than to collect the data from the purchasers. (4 marks)

4 Explain, using examples, **four** different ways in which the Internet is being used to support illegal activities. (8 marks)

5 Information Systems need to be protected from both internal and external threats.

(a) Explain, using examples, the differences between an internal and an external threat to an Information System. (4 marks)

(b) For each of the following, describe a measure that a company can take to protect their Information System from:

(i) Internal threats; (2 marks)

(ii) External threats. (2 marks)

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- 6 What do the following features, available with most email software, allow the user to do?
- (a) Forward *(2 marks)*
 - (b) Reply *(2 marks)*
 - (c) Send/receive *(2 marks)*
 - (d) Attach *(2 marks)*
 - (e) Prioritise *(2 marks)*
- 7 Data protection legislation was introduced into the UK in 1984; it has since been superseded by the 1998 Act.
- (a) State why the legislation was originally introduced. *(1 mark)*
 - (b) State what type of data is the subject of the Data Protection Act 1998. *(2 marks)*
 - (c) A company wishes to collect data from order forms submitted by its customers to sell to other companies.

State **two** actions that the company must take so that it can legally collect and sell that data. *(2 marks)*
 - (d) The Data Protection Act gives individuals the right to see what data is being held about them.
 - (i) State how an individual must ask to do this. *(1 mark)*
 - (ii) Could an individual have to pay to receive a copy of his or her data? *(1 mark)*
- 8 A clerk working at the offices of a mail order company spends all day entering order data into the company's sales order processing system. The clerk uses a workstation linked to the company's main computer.
- To ensure the health and safety of the clerk, state, with reasons:
- (a) **two** work practice procedures that the company could introduce; *(4 marks)*
 - (b) **two** design features that the hardware the clerk uses should have; *(4 marks)*
 - (c) **two** design features that the software the clerk uses should have. *(4 marks)*

9 A large clothing retailer has decided to set up an on-line store.

- (a) Explain **two** advantages to the retailer of using this method of selling as opposed to selling from a high street shop. *(4 marks)*
- (b) Explain **one** advantage to the customer of using the on-line store rather than a high street shop. *(2 marks)*
- (c) State **one** disadvantage to the customer of using the on-line store rather than a high street shop. *(1 mark)*
- (d) Describe **two** ways in which the retailer could make use of the Internet to publicise its new service. *(4 marks)*

END OF QUESTIONS