

General Certificate of Education
June 2004
Advanced Subsidiary Examination



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

Friday 11 June 2004 Afternoon Session

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

Time allowed: 1 hour 30 minutes

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 ICT1.
- Answer **all** questions.

Information

- The maximum mark for this paper is 60.
- 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.

Answer **all** questions.

1 Name the following:

- (a) legislation used to protect companies and individuals producing software; *(1 mark)*
- (b) an Act introduced to protect personal data about individuals; *(1 mark)*
- (c) an Act designed to allow companies to prosecute anyone accessing their Information Systems without authorisation; *(1 mark)*
- (d) legislation to protect employees working with ICT systems. *(1 mark)*

2 Every ICT task involves the input of data, which is then processed and information is output.

Using an example of an ICT task with which you are familiar:

- (a) state what the task is; *(1 mark)*
- (b) give **one** example of data that is input, stating how it is input; *(2 marks)*
- (c) describe **one** process needed to fulfil the task; *(2 marks)*
- (d) give **one** example of information output, stating how it is output. *(2 marks)*

3 Explain, using examples, the difference between malpractice and crime as applied to Information Systems. *(4 marks)*

4 A report has been produced by an information system for the sales manager of a company. He then complains that he does not know when the report was produced, or how up-to-date the contents of the report are.

- (a) Explain why it is important to have the date that it was produced shown on a report. *(2 marks)*
- (b) Explain, using an example for each one:
 - (i) why up-to-date information will be important to the sales manager; *(2 marks)*
 - (ii) why the age of the data used to produce any graphs included in the report will be important. *(2 marks)*

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- 5 When an organisation holds personal data, it should have procedures in place that allow the data subjects to view any data that it holds about them.
- (a) State why it is necessary to have such procedures. *(1 mark)*
- (b) State **two** ways in which data subjects may request to view a copy of their data. *(2 marks)*
- 6 Describe **four** ways in which an organisation can make use of the Internet to communicate with suppliers and customers around the world. *(8 marks)*
- 7 An important part of the development of an ICT solution is the production of documentation for its users. Describe **two** personal skills that are needed by an ICT professional when producing user documentation. *(4 marks)*
- 8 In order to prevent health problems, software can be designed to be “user friendly”. For example, one function that a software developer can provide within a piece of software is the displaying of clear error messages. These can help to prevent stress in the user by making it obvious how to correct the error.
- For **three** other functions that could be provided within a piece of software, state the function and explain how it can help to prevent a health problem. *(6 marks)*
- 9 The usefulness of ICT systems may be limited by several factors.
- For each of the factors given below explain, using a different example for each one, how the factor may affect the usefulness of an ICT system:
- (a) hardware limitations; *(2 marks)*
- (b) software limitations; *(2 marks)*
- (c) communications limitations; *(2 marks)*
- (d) inappropriate data control mechanisms or procedures. *(2 marks)*

TURN OVER FOR THE NEXT QUESTION

Turn over ►

10 For each of the following areas, state **one** advantage and **one** disadvantage of the use of ICT. Your advantages and disadvantages must be different for each area.

- (a) Education *(2 marks)*
- (b) Leisure in the home *(2 marks)*
- (c) Industry *(2 marks)*
- (d) Medicine *(2 marks)*
- (e) Teleworking *(2 marks)*

END OF QUESTIONS