

General Certificate of Education
January 2008
Advanced Level Examination



INFORMATION AND COMMUNICATION TECHNOLOGY ICT5
Unit 5 Information: Policy, Strategy and Systems

Monday 28 January 2008 1.30 pm to 3.30 pm

For this paper you must have:

- 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 ICT5.
- Answer **all** questions.
- Do all rough work in the answer book. Cross through any work you do not want to be marked.

Information

- The maximum mark for this paper is 90.
- The marks for questions are shown in brackets.
- The use of brand names in your answers will **not** gain credit.
- Question 10 should be answered in continuous prose. In this question you will be marked on your ability to use good English, to organise information clearly and to use specialist vocabulary where appropriate.

Answer **all** questions.

1 Software developers should test new software thoroughly.

Explain **three** reasons why new software may not behave correctly, even when it has been thoroughly tested.

(6 marks)

2 In supporting the World Wide Web, describe the rôle of:

(a) a router;

(2 marks)

(b) a web server.

(2 marks)

3 Describe **two** ways in which standards can arise within the ICT industry.

(4 marks)

4 Give **four** reasons why a school might upgrade the hardware and/or the software of its information systems.

(4 marks)

5 Different approaches to the problem of communicating with ICT systems have led to the development of different types of Human-Computer Interface (HCI).

Discuss the relative advantages of **three** different types of HCI, using examples to illustrate your answer.

(12 marks)

6 All the activity on an organisation's computer network can be logged. One reason for this logging is to charge departments for their use of system resources.

(a) Give **four** other reasons for logging network activity and, for each one, state the data that needs to be recorded.

(8 marks)

(b) Explain **one** possible drawback of logging network activity.

(2 marks)

7 (a) State **three** reasons for using a Database Management System (DBMS).

(3 marks)

(b) A relational database holds data that has been normalised.

Describe what is meant by data normalisation.

(4 marks)

8 The following data is required to appear on an order form for an online flower shop:

Title, Initials, Surname, Address, Postcode, Phone number, Type of flower arrangement, Quantity, Cost.

- (a) Use a whole page of your answer book to sketch a design for the order form. (3 marks)
- (b) Annotate your design to explain how it takes into account **four** psychological factors.

Your annotation must identify each factor that you have considered. (8 marks)

9 There are different ways of providing a software solution to a specialist application.

Give **four** ways of providing a software solution and, for each one, explain **one** benefit to an organisation of choosing that way. (12 marks)

10 A pet shop manager needs an ICT consultant to evaluate a number of stock control packages. You wish to be considered for this work.

Write a letter to the manager of the pet shop about what you would do, paying particular attention to:

- the procedures that you would use to evaluate the packages
- example evaluation criteria that you would use
- the content of the evaluation report that you would submit.

The quality of written communication will be assessed in your answer. (20 marks)

END OF QUESTIONS

There are no questions printed on this page