



GCE AS/A level

407/01

**INFORMATION AND
COMMUNICATION TECHNOLOGY**

ICT 1

INFORMATION SYSTEMS

A.M. FRIDAY, 15 May 2009

1½ hours

ADDITIONAL MATERIALS

In addition to this examination paper, you will need an 8 page answer book.

INSTRUCTIONS TO CANDIDATES

Answer **all** questions.

The intended marks for questions or part questions are given in brackets []. You are advised to divide your time accordingly. The total number of marks available is 60.

You are reminded of the necessity for good written communication and orderly presentation in your answers.

SECTION A

Answer **all** questions.

1. Define the terms Data, Information and Knowledge. Use an appropriate example to demonstrate the relationship between each of the terms. [6]

2. (a) “Up to date, accurate and complete” information adds value to an organisation by aiding decision making. Describe using suitable *distinct* examples **two** other ways such information adds value. [4]

- (b) There are costs involved with getting good quality information including:
 - money
 - time
 - human resources.

Describe with suitable *distinct* examples how such costs could arise. [3]

3. A student wishes to find out about the *Environment*. Describe how the student could make use of **two** different, appropriate *electronic* sources of information to find out about the *Environment*. [4]

4. An Estate Agent uses *presentation* software in the running of the business.
 - (a) Describe, using an appropriate example in **each** case, how the following features can be used in the running of the Estate Agent’s business.
 - (i) Animated transitions [2]
 - (ii) Templates [2]
 - (iii) Hyperlinks [2]
 - (b) The Estate Agent also maintains a website. Discuss the advantages of using HTML coding rather than templates. [2]

5. Electronic mail has become very important in the modern world. Explain the advantages and disadvantages of using email for communication. [5]

6. Employees in an Architects office use computers to produce their designs.
- (a) Describe three health hazards that employees working with computers need to be aware of. [3]
 - (b) Describe three different actions the company should take to minimise these risks. [3]
7. When creating online bank accounts, *verification* and *validation* procedures are used.
- (a) Define the term *verification* and describe using a suitable example, a method that would be used with online banking. [3]
 - (b) Define the term *validation* and describe, using a suitable example, a method that would be used with online banking. [3]

SECTION B

Answer all parts of this question.

8. ICT is widely used in many areas of the Health Service such as expert systems, body scanning devices, databases for record keeping and bar coding.
- (a) Define the term 'expert system' and describe using suitable examples their advantages for patient care. [6]
 - (b) Discuss in detail the main benefits and drawbacks of such body scanning devices in the treatment of patients. [4]
 - (c) Discuss the reasons why databases were introduced for storing patient records and assess the impact they have had upon patient tracking and monitoring. [4]
 - (d) Describe using a suitable example how a bar coding system is used in the care of patients and give an advantage of this system. [2]
- Quality of Written Communication* [2]