

General Certificate of Education
Advanced Subsidiary Examination

Information And Communication Technology
Module ICT1

Module Test

Time

- 1 hour 30 minutes

Information for candidates

- Answer all the questions on this paper
- The number of marks is given in brackets at the end of each question or part question
- The maximum mark allocation for this paper is 60.

Answer all questions

1. State three characteristics of good quality data. (3)
2. Data input to an ICT system can take many forms such as pictures, sounds, numbers and letters. In all cases the data has to be encoded.

Using an example, explain why data needs to be encoded. (2)
3. When investigating the end users' requirements for a new ICT system, a software developer needs certain personal skills.

Explain, with reasons, **two** essential personal skills that would be of use to the developer in performing this task. (4)
4. Some transport and distribution companies have now installed information systems on their vehicles that give details of traffic problems across the country.

Explain **one** benefit to the company of installing these systems. (2)
5. Describe, using examples, **four** ways in which a company could make use of the Internet to benefit its business. (8)
6. Many organisations have adopted e-mail as a method of communication only to find that it can have disadvantages.

Describe **three** disadvantages of the use of e-mail, other than contracting viruses, for business communication. (6)
7. In order to protect the health and safety of the end user, certain factors should be considered when designing a piece of software.

State **four** factors that should be considered, giving a reason for each one. (8)
8. Explain using examples, the difference between malpractice and crime as applied to Information Systems. (4)
9. The use of Automated Teller Machines (ATMs), provided by banks and building societies, has become a common way for people to obtain cash.

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- (a) State:
- (i) **One** advantage to the bank or building society of installing ATMs; (1)
 - (ii) **two** advantages to the customer of using ATMs. (2)
- (b) The use of ICT has allowed banks and building societies to keep detailed records of purchases that people make using credit or debit cards. Explain **one** reason why this is a benefit. (2)
- 10 The personnel department of a large company keeps records on all the employees of the company. These records contain personal data and details of the employees' position, training and medical history. The company is registered on the Data Protection Register and has to abide by the principles of the 1988 Data Protection Act. Three of these principles are:
- "Personal data shall be adequate, relevant and not excessive in relation to the purposes for which they are processed";
 - "Personal data shall be accurate and, where necessary, kept up to date";
 - "Appropriate technical and organisational measures shall be taken against unauthorised or unlawful processing of personal data and against the accidental loss of or destruction of, or damage to, to personal data".
- For each of the principles stated above, describe what the company must do to comply with them. (6)
- 11 An organisation pays its employees weekly by transferring money electronically into their bank accounts. Employees are paid different amounts depending on the hours that they have worked on their grade - which determines their hourly rate of pay. The company makes use of a payroll program.
- (a) State:
- (i) **two** items of data that would need to be input to the payroll program each week for each employee; (2)
 - (ii) **two** items of data that would be stored every time the program is run; (2)
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- (iii) **two** possible documents output on paper from the payroll program. (2)
- (b) Explain **three** advantages to the organisation of transferring money electronically into its employees' bank accounts, rather than paying their employees in cash. (6)