AQA

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

INFORMATION AND COMMUNICATION TECHNOLOGY ICT2
Unit 2 Information: Management and Manipulation

Tuesday 13 January 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 ICT2.
- 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.

ICT2

Answer **all** questions.

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1 A document, containing text and graphics, is printed out from a computer system.

Name **two** types of printer that may be used.

(One word answers are acceptable for this question.) *(2 marks)*

2 State a medium that may be used for backing up each of the following files, and explain why it is suitable.

(a) a short, word-processed document *(2 marks)*

(b) a multimedia presentation *(2 marks)*

3 Data can be encoded and encrypted.

(a) Describe what data encoding means. *(2 marks)*

(b) What is meant by the term *encryption*? *(2 marks)*

4 The two terms, *generic package* and *integrated package*, are often confused.

(a) Describe, giving an example, what is meant by a generic package. *(2 marks)*

(b) Describe, giving an example, what is meant by an integrated package. *(2 marks)*

5 A large mail order company has decided to upgrade the software used to process customer orders.

(a) Explain possible technical implications of changing the software. *(4 marks)*

(b) Explain possible human implications of changing the software. *(4 marks)*

6 Three colleges in a large city are to merge and become a single college spread across the three sites. Each college has a Local Area Network (LAN) and these networks are to be joined together to form a Wide Area Network (WAN).

(a) Describe **two** differences between a LAN and a WAN. *(4 marks)*

(b) Give **two** advantages to the merged college of using the new WAN. *(2 marks)*

(c) State **two** problems that could occur when using the new WAN. *(2 marks)*

7 Name **three** different types of Human/Computer Interface (HCI). For each one state, with a reason, a situation where it could be used. *(9 marks)*

8 An airline uses two different types of processing in its computer systems. The airline booking system uses transaction processing for booking passengers' seats, and its aircraft use real-time processing for their on-board flight control systems.

(a) Explain, using the booking system as an example, the term *transaction processing*. *(3 marks)*

(b) Explain, using the flight control system as an example, the term *real-time processing*. *(3 marks)*

9 A small building society keeps records of its customers, their accounts and transactions in a relational database. Each customer can have one account. Examples from tables in the relational database are shown below.

Customer Table

Surname	Forename	Street	Town	Postcode	Account Number
Smith	Susan	9 Park Avenue	Rushworth	RH12 2PV	2573
Patel	Peter	19 The Crescent	Rushworth	RH12 5ST	4913
Jones	John	6 New Street	Rushworth	RH12 2XR	6410

Transaction Table

Account Number	Date	Transaction	Amount	Type	Balance
6410	16/10/2003	Deposit	£60.00	Cash	£560.00
4913	16/10/2003	Withdrawal	£150.00	Cheque	£1050.00
2573	16/10/2003	Deposit	£1045.77	Cheque	£5799.50
2573	20/10/2003	Withdrawal	£4500.00	Cheque	£1299.50
6410	21/10/2003	Withdrawal	£100.00	Cash	£460.00
2573	22/10/2003	Withdrawal	£50.00	Cash	£1249.50

(a) State another field you would expect to see in the Customer Table. Explain why it is needed and how it could be validated. *(3 marks)*

(b) Name the fields in the Transaction Table that:

   (i) would need to be entered by the building society staff;
   (ii) could be entered automatically by the system. *(6 marks)*

(c) Explain how the database management report generator could use the two tables to produce statements to be sent to customers. Use the entries for Susan Smith to demonstrate the report produced. You may use a diagram to illustrate your answer. *(6 marks)*

END OF QUESTIONS