General Certificate of Education
January 2002
Advanced Subsidiary Examination

AQA

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

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

Tuesday 15 January 2002 Afternoon Session

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

Time allowed: 1 hour 45 minutes

Instructions
- Use blue or black ink or ball-point pen. Pencil should only be used 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 73.
- Mark allocations are shown in brackets.
- You are reminded of the need for good English and clear presentation in your answers.

Answer **all** questions

1   All spreadsheet packages allow users to format cells in various ways.

State **three** different ways of formatting cells.   *(3 marks)*

2   Passwords, entered at a keyboard, are often used as a method of protecting data against malicious access.

Give **two** other methods of preventing access to data.   *(2 marks)*

3   A company has procedures to backup the data files held on its computer system on a regular basis.

Explain why recovery procedures should also be in place.   *(3 marks)*

4   A mail order company is using an interactive transaction processing system for its computerised telephone ordering system.

Explain what is meant by the terms *interactive processing* and *transaction processing*.   *(4 marks)*

5   A database has been used to replace a flat file information storage and retrieval system.

List **four** advantages of using a database.   *(4 marks)*

6   A company stores its staff records in a computer file. Examples of records from the file are shown below.

Surname	Forename	Department Number	Department Name	Extension Number
Chan	Dan	132	Accounts	572
	Wendy	123	Training	467
Jones	Sarah	121	Training	468
Chan	Dan	132	Accounts	572
Patel	Paul	132	Acounts	573

(a)   The records in this file have been input with the validation checking turned off. Referring to the records above, state **four** problems that have occurred.   *(4 marks)*

(b)   Name and describe **three** different validation checks that would have prevented these problems.
                                                                                          (6 marks)

7 An Internet search engine is said to have a *natural language interface*.

    (a)   Explain, using examples, **two** advantages to the user of the natural language interface. *(4 marks)*

    (b)   Explain, using examples, **two** limitations of a natural language interface. *(4 marks)*

8 Software packages need to be thoroughly tested before they are released. An "address book organiser" package is being given away to promote a new software company.

    (a)   Explain why it is important that this piece of software is thoroughly tested. *(2 marks)*

    (b)   The organiser stores telephone numbers that can be used for automatic dialling.

        Describe, using examples, **three** types of test data that should be used for checking that only valid telephone numbers can be stored. *(6 marks)*

9 A small company is installing a computer network. Employees are to be issued with a handbook to help them to understand the networking terms.

    Provide an explanation of the following terms for the handbook:

    (a)   *Local Area Network* and *Wide Area Network*; *(5 marks)*

    (b)   *Server* and *peer-to-peer*. *(5 marks)*

10 A company has offices on five different sites, each office has between ten and twenty members of staff working in it. Internal e-mail is used as a means of communicating between the staff. It has been suggested that speech recognition input and voice output might be used for the e-mail system.

    (a)   State the extra input and output devices each PC would need to support speech recognition input and voice output. *(2 marks)*

    (b)   State **two** advantages to the staff of using a speech recognition system. *(2 marks)*

    (c)   State **three** reasons why the speech recognition system may not be effective. *(3 marks)*

    (d)   State **two** disadvantages of the voice output system. *(2 marks)*

Turn over ▶

11 A large college provides a wide range of courses. The college has three options for distributing information on the courses to potential students.

For **each** of the following options, describe **one** advantage and **one** disadvantage to the college of this method of disseminating the information.

Option 1 Issue a prospectus containing the details of all the courses.

Option 2 Publish course information on the college website.

Option 3 Publish a course information booklet that can be downloaded from the college website.

(12 marks)

END OF QUESTIONS