COMPUTING 2508

Computer Systems Development and Practical Applications

Friday **13 JANUARY 2006**   Afternoon   1 hour 30 minutes

Candidate Name		Centre Number	Candidate Number

TIME 1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

- Write your name in the space above.
- Write your Centre number and candidate number in the boxes above.
- Answer **all** the questions.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- If you run out of space for an answer, continue on the spare pages at the back of the booklet.
- If you use these spare pages, you must write the question number next to your answer. You can also use the spare pages for rough work.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is 90 of which 4 marks are allocated to the assessment of the quality of written communication.
- You will be awarded marks for the quality of written communication where an answer requires a piece of extended writing.
- No marks will be awarded for using brand names of software packages or hardware.

FOR EXAMINER'S USE		
Qu.	Max.	Mark
1	26	
2	10	
3	9	
4	12	
5	9	
6	6	
7	14	
WC	4	
TOTAL	90	

This question paper consists of 10 printed pages and 2 lined pages.

1 A mail order company currently operates a manual warehouse system. A systems analyst has been employed to produce a computerised warehouse system.

(a) The systems analyst will follow the stages of the system life cycle.

Draw a diagram to show the stages of the system life cycle.

[7]

(b) The analyst is considering a suitable method for the staff to change from the old system to the new system.

Name and describe **three** methods of changeover.

Method 1 ....

Description ....

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....[3]

Method 2 ....

Description ....

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....[3]

Method 3 ....

Description ....

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....[3]

(c) Technical documentation is produced.

State **four** items that should be included in technical documentation.

1 ....[1]

2 ....[1]

3 ....[1]

4 ....[1]

[Turn over

(d) After the new system has been operational for some time, a systems evaluation is carried out.

Describe **three** criteria used in system evaluation.

1 ....

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....[2]

2 ....

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....[2]

3 ....

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....[2]

2 Many applications use a Graphical User Interface (GUI).

Explain the following features of a GUI.

Icon ....

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....[2]

Menu ....

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....[2]

Window ....

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....[2]

Toolbar ....

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....[2]

Dialogue box ....

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....[2]

[Turn over

3 Describe how each of the following are used in data capture. For each, suggest a suitable use.

Bar code

Description ....

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Use ....[3]

Optical Character Recognition

Description ....

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Use ....[3]

Sensor

Description ....

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Use ....[3]

4 A telephone company produces monthly bills for its customers. The company uses batch processing to produce the bills.

(a) Describe batch processing.

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....[2]

(b) Explain why batch processing is suitable in this case.

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....[4]

(c) Each customer has a unique account number consisting of 8 digits.

Describe **three** different methods that could be used to validate the customer account number.

Method 1 ....

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....[2]

Method 2 ....

....

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....[2]

Method 3 ....

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....[2]

[Turn over

5 An organisation encourages its employees to work from home (teleworking).

Discuss the impact of teleworking for:

- the individual,

- the organisation,

- society in general.

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....[9]

6 A company intends to update its software. It is considering either off-the-shelf software or custom written software.

(a) State **four** advantages of choosing off-the-shelf software.

1 ....

....[1]

2 ....

....[1]

3 ....

....[1]

4 ....

....[1]

(b) Explain the term *custom written software*.

....

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....[2]

[Turn over

7 A health centre uses an expert system to aid diagnosis.

(a) Explain what is meant by an *expert system*.

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....[3]

(b) Explain how an expert system can assist doctors in the health centre.

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....[3]

A terminal is provided in the waiting room of the health centre to allow patients to diagnose ailments.

(c) A form-based interface is used by patients to enter their details.

Describe the features of a form-based interface.

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....[6]

(d) State **two** drawbacks of patients using voice recognition as a user interface.

Drawback 1 ....

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Drawback 2 ....

....[2]

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