OCR
RECOGNISING ACHIEVEMENT

ADVANCED GCE   **2517**

INFORMATION AND COMMUNICATION TECHNOLOGY

ICT Systems and Systems Management

THURSDAY 5 JUNE 2008   Afternoon

Time: 1 hour 30 minutes

Candidates answer on the question paper
Additional materials: No additional materials are required

INSTRUCTIONS TO CANDIDATES

* Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
* Use blue or black ink. Pencil may be used for graphs and diagrams only.
* Read each question carefully and make sure that you know what you have to do before starting your answer.
* Answer **all** the questions.
* Do **not** write in the bar codes.
* Write your answer to each question in the space provided.
* Additional answer space is available on the lined pages at the back of this booklet. Answers on these pages **must** be clearly numbered.

INFORMATION FOR CANDIDATES

* The number of marks for each question 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 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		
1		18
2		23
3		22
4		10
5		13
QWC		4
TOTAL		90

This document consists of **18** printed pages and **2** lined pages.

A company manages properties which are rented by students at a university.

The company collects the rent, looks after the repairs to the properties and advertises vacancies when they occur. A database contains details of the properties, students renting the properties and the employees working for the company.

1 (a) (i) Define the word data.

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(ii) Give **one** example of data that might be collected by the company.

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(iii) Give **one** example of information which the company might pass to a student renting a property.

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(iv) Give **one** example of information which a student might pass to the company.

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 (b) The company uses a personnel system.

 Describe the role of the personnel system in this company.

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 (c) Explain the need for the information produced by the database to be effectively managed.

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[Turn over

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 (d) When the employees of the company search the database they use parameter queries and complex queries.

 (i) Describe a complex query and give an example that might be used by the company.

   Description ....

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   Example ....

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 (ii) Describe a parameter query and give an example that might be used by the company.

   Description ....

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   Example ....

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2 The company has decided to obtain a system that can be used by students to search for properties to rent.

The system will be based in the reception area of the company's office.

A project team will work on the new system.

(a) Identify the responsibilities of

  (i) a project manager ....

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  (ii) a programmer ....

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[Turn over

(b) Identify **three** output devices for this system and in each case state its purpose.

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(c) The company find that users of the system are very poor typists and often make mistakes when entering data. They decide to ask the project team to produce a speech input/output interface for the system.

Discuss the factors involved in the effective design of the speech input/output system. You should consider cognitive psychology and artificial intelligence in your answer.

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(d) The managers use computer aided learning (CAL) to teach staff how to use the property management database.

Explain how CAL may be useful to both the staff and management.

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3 Every month a newsletter is sent by the company to the students.

The newsletter is personalised.

(a) (i) Explain why batch processing would be the best method for producing the newsletter.

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[Turn over

(ii) Explain why real-time processing would be the best method for the system used to search for properties.

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(iii) Identify **one** other type of processing method.

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(b) The company is considering upgrading the word processing software that is used to create the newsletter.

Explain the factors that must be taken into account when deciding whether to upgrade the software.

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[Turn over

(c) A new word processor is chosen.

The company is to install this word processor using direct installation.

Explain why this is the most appropriate method of installation.

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(d) Discuss the support required by the staff from the managers before and after the installation of the new word processor.

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[Turn over

4 (a) The company expands into several towns. The management find it difficult to meet and use video conferencing to help them.

Describe video conferencing and explain how this kind of system can aid the management.

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(b) The management use a Management Information System (MIS).

Describe MIS and explain how this kind of system can aid the management.

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[Turn over

5 The managers are keen to use new developments in hardware and software in the company, to help students find suitable properties and to help the students keep their properties clean, tidy and secure.

This means that changes will be made to the hardware and software used by the company.

(a) Explain the importance of communication between managers and employees when managing the changes.

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(b) Discuss developments in hardware and software that could

- help the students choose suitable properties to rent using a system based in the reception area of the company's office

- help the students keep their properties clean, tidy and secure once they have moved in.

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Quality of Written Communication [4]

[Total: 90]

If you use these lined pages to complete the answer to any question, the question number **must** be clearly shown.

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PLEASE DO NOT WRITE ON THIS PAGE