

Thursday 26 January 2012 – Afternoon

A2 GCE INFORMATION AND COMMUNICATION TECHNOLOGY

G063/01 Systems, Applications and Implications

Candidates answer on the Question Paper.

OCR supplied materials:

None

Other materials required:

None

Duration: 2 hours



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Do **not** write in the bar codes.

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 **120**, of which marks are allocated to the assessment of the quality of written communication where an answer requires a piece of extended writing.
- This document consists of **20** pages. Any blank pages are indicated.

Section A

Answer **all** questions

1 Describe the analysis and testing stages of the systems life cycle.

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2 Give **two** comparisons of the use of questionnaires and interviews for investigating a system.

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3 (a) Describe prototyping as a method of software development.

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(b) Identify and describe **three** types of data used in a test plan.

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4 Describe **two** ways Gantt charts are used as a tool for project planning.

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5 Explain **two** functions of a stock control system in a company.

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- 6 Describe how the emergency services can find the exact location of a mobile phone that is being used to make an emergency call in the UK.

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PLEASE TURN OVER FOR QUESTION 7

7 (a) Describe **two** characteristics of an intranet.

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(b) Describe **one** purpose of an intranet.

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8 Explain **two** ways management information systems (MIS) can be used to assist decision making within a company.

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PLEASE TURN OVER FOR SECTION B

Section B

Answer **all** questions

Questions 9–14 concern a chain of gentlemen’s salons which specialise in haircutting, shaving and body treatments.

The business has three salons all located in the same city. The directors of the salons have employed a manager for each salon.

The directors of the salons have been advised to set up a local area network (LAN) with internet access in each location. Future development will see a wide area network (WAN) created.

9 (a) Give **two** comparisons between a LAN and a WAN.

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(b) Describe **three disadvantages**, for the business, of using lasers to connect the LANs in the salons together.

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PLEASE TURN OVER FOR QUESTION 10

10 The directors of the salons have decided they require an on-line appointment system to cover all three sites.

(a) Describe what is meant by a mental model.

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(b) Explain, using examples, how a client's mental model can be used in the design of the user interface for the on-line appointment system.

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(c) Describe **three** purposes of reviewing the salons' on-line appointment system during its lifetime.

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PLEASE TURN OVER FOR QUESTION 10(d)

The directors of the salons are planning to expand their business. A new management information system (MIS) is being designed to assist them with this.

Phased and pilot are two methods of changeover which could be used when installing the new MIS.

(d) Identify and describe **two** other methods that can be used during the installation of the new MIS.

For each method give **one** advantage of its use.

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11 Additional hardware will need to be purchased for the salon's MIS to run on.

(a) Describe what is meant by a standard.

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(b) Explain **two** reasons why standards are important when purchasing the additional hardware.

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(c) The directors are to distribute their MIS database to all salons.

Explain **four** recommendations that you would make to the directors of the salons to make the distributed database(s) more secure.

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12 The manager at each salon needs to be trained to use the new MIS.

(a) Explain **two disadvantages** of using computer based training to train the managers on the new system.

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(b) The computer based training system accepts speech as a method of input.

Explain **two** problems the managers could have when using speech as a method of input.

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(c) (i) The MIS has become a valuable asset to the salons.

Describe a difference between backing up and archiving of data.

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(ii) Give **two** reasons why backing up of data is necessary.

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13 Staff at the salons are concerned about the recent changes in the business.

Discuss the importance of communication when managing change.

The quality of written communication will be assessed in your answer to this question.

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- 14 Discuss hardware and software developments that are changing or might change the way the salons are run.

The quality of written communication will be assessed in your answer to this question.

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END OF QUESTION PAPER



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