



**ADVANCED GCE**

**INFORMATION AND COMMUNICATION TECHNOLOGY G063**

Systems, Applications and Implications

Candidates answer on the Question Paper

**OCR Supplied Materials:**  
None

**Other Materials Required:**  
None

**Wednesday 27 January 2010**

**Afternoon**

**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 clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use 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, however additional paper may be used if necessary.

**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.
- No marks will be awarded for using brand names of software packages or hardware.
- This document consists of **20** pages. Any blank pages are indicated.

**Section A**

Attempt **all** the questions in this section.

1 (a) Describe the following stages of the systems life cycle.

(i) Investigation and analysis

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.....  
..... [2]

(ii) Design

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..... [2]

(b) Describe rapid application development (RAD).

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..... [2]

(c) State **two** methods used for installing a new computer-based information system.

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..... [2]

2 (a) Identify **three** characteristics of a wide area network (WAN).

Characteristic 1 .....

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Characteristic 2 .....

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Characteristic 3 .....

..... [3]

(b) Describe a single-user operating system.

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..... [4]

(c) Describe **two disadvantages** of using a peer-to-peer network in a school.

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..... [4]

3 State **two** purposes for each of the following network components:

(a) Switch

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..... [2]

(b) Network interface card

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..... [2]

(c) Repeater

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..... [2]





**Section B**

Attempt **all** the questions in this section.

**Questions 7-12 concern an airline company which specialises in journeys to Europe.**

The management of the airline needs to update the check-in system to deal with passengers more efficiently. They have employed a consultancy firm to investigate the current system and design the updates.

7 (a) Describe the role and responsibilities of a project manager.

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..... [4]

(b) Describe **three** different methods a systems analyst might use when investigating the current system.

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9 (a) At check-in, passengers are asked for details which are entered on screen by an airline employee.

(i) Describe a mental model.

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..... [2]

(ii) Describe how a mental model can be applied to the design of a user interface.

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..... [4]



(c) (i) Compare the use of command line and forms as methods of dialogue that the employees might use to interact with the check-in system.

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..... [3]

(ii) Describe **one disadvantage** of using speech as a method of input for the check-in system.

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..... [2]

(iii) Give **one** other method of dialogue that could be used to interact with the check-in system.

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..... [1]

(d) Describe how data entered onto the system can be kept confidential.

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**19**  
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