

**Tuesday 11 June 2013 – 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. These questions are marked with an asterisk (\*).
- This document consists of **20** pages. Any blank pages are indicated.

**SECTION A**

Answer **all** questions

1 (a) The systems life cycle has many different stages.

(i) Describe **two** different activities that could occur during the design stage.

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2 .....

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[4]

(ii) Describe **two** roles of the project manager within a project team.

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2 .....

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[4]

(b) Identify and give the use of **two** hardware items that could be found in a system specification.

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2 .....

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[4]

(c) Describe the relationship between the investigation and analysis stage and the evaluation stage.

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[2]





- 5 Identify the most suitable **type** of operating system and describe **one** feature that makes it suitable for use in each of the following situations.

Producing mobile telephone bills for customers each month.

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..... [3]

A computer system for booking airline tickets.

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..... [3]

- 6 Explain how colour should be used when designing a Human-Computer Interface (HCI).

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..... [4]

**SECTION B**

Answer **all** questions

**Questions 7–16 concern a school.**

Students and staff at a school have well equipped, networked IT facilities including internet access and a school intranet.

**7** Explain **three** problems the students could encounter when using the internet to research a school project.

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**[6]**

8 (a) The school has an intranet and an extranet that its students can use.

Describe the purpose of an extranet.

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..... [2]

(b) Compare the school's intranet to its extranet.

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..... [4]



- 9 (a) The school's network manager is concerned about the available bandwidth across the network.

Explain **one** reason why it is important to have sufficient bandwidth when transmitting data across the network.

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..... [2]

- (b) Explain **two** ways in which protocols are used to enable communication between network devices.

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2 .....

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[4]

**Question 10 begins on page 10**

10 The school runs a client-server network.

(a) Describe what is meant by a client-server network.

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..... [2]

(b) Describe **two** advantages of using a client-server network in a school environment.

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(b) Explain, using an example, how a potential user's perception could affect the design of the system's interface.

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..... [3]

(c) When would adaptive maintenance be needed on the system?

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12 The school is investigating upgrading the word processor, spreadsheet and presentation software that the students and staff use.

(a) Explain **two** factors which could affect the decision about whether to upgrade.

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2 .....

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..... [4]

(b) Describe **two** advantages of using computer-based training software to learn how to use new software packages.

1 .....

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2 .....

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..... [4]







- 15 The tasks that need to be completed to construct the new building are given in the table below. The construction is due to start on the 2 January 2014.

Task Number	Task	Duration	Predecessor
1	Foundations and drainage	2 weeks	
2	Steel frame	2 weeks	1
3	Brickwork and roof	3 weeks	2
4	External windows and doors	1 week	3
5	Internal works	2 weeks	3
6	Decoration	1 week	5
7	Fixtures and fittings	1 week	6
8	Building inspection	2 days	3

Create a Gantt chart using the above plan of tasks.

[6]

PLEASE TURN OVER FOR THE LAST QUESTION



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**END OF QUESTION PAPER**

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