



Tuesday 17 June 2014 – Morning

A2 GCE INFORMATION AND COMMUNICATION TECHNOLOGY

G063/01 ICT 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 Describe the purpose of the following types of software.

Operating System

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Utility

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Application

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[6]

2 Describe **two** limitations of the use of meetings when a systems analyst investigates a system.

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[4]

3 A network of computers is used to perform distributed processing.

Describe distributed processing.

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4 Compare the use of email and instant messaging as ways of communicating within a company.

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..... [4]

5 Using examples, describe how the managers of a school could use a Management Information System (MIS) in decision making.

Dotted lines for writing, ending with [4]

6 A chain of restaurants is planning to use a pilot changeover strategy for a new ordering system. Justify the use of a pilot changeover strategy for the chain of restaurants.

Dotted lines for writing, ending with [6]

SECTION B

Answer **all** questions

Questions 9 to 15 concern 24-7 News which operates a news broadcasting service. Its headquarters is in London.

9 A reporting team from 24-7 News has been sent to Mount Everest in the Himalayas.

(a) Describe how 24-7 News could send a live video transmission from Mount Everest to its headquarters in London.

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(b) Describe **three** limitations of using a mobile satellite broadband system for setting up a live video link.

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[6]

10 24-7 News provides an extranet.

Explain **two** advantages of an extranet to 24-7 News.

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[4]

11 24-7 News stores data on its servers.

(a) Explain **two** reasons why the data needs to be kept confidential.

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[4]

(b) Explain **two** physical security measures that 24-7 News could implement to protect its data.

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[4]

12 A custom-written application will be created for customers to access 24-7 News' services from their smart phones.

(a) Describe how 24-7 News could be involved as a client during the design, testing and installation stages of the systems life cycle.

Design

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Testing

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Installation

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[6]

(b) Explain how a project manager could use a Gantt chart in the planning of the smart phone project.

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[4]

A systems designer is a member of the project team working on the smart phone application. One role of the systems designer is to design the user interface.

(c) Describe **two** other roles of the systems designer.

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[4]

(d) Explain **two** ways a potential user's learning should be considered when designing the user interface for the application.

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[4]

(e) Describe how the concept of the Model Human Processor can be applied to the development of the application’s user interface.

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(f) Describe how Rapid Application Development (RAD) could be used to create the application.

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(g) 24-7 News plans to review the application after its launch.

Explain **two** reasons for conducting a review after the application's launch.

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[4]

13 The smartphone application needs a password. Create a flowchart for the process of changing a password that has the following requirements:

- A new password and a copy of the new password must be entered. The password entry must be verified.
- A calculation takes place to determine the password strength. Passwords are either strong or weak. Only strong passwords will be accepted.
- If the routine is not successful the user will be given an appropriate feedback message. If the routine is successful the user will be given a confirmation message.
- If an error occurs during the routine, it will start again.

[6]

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Question 15 begins on page 16

15* 24-7 News reports on global current affairs.

Discuss how current developments in hardware and software may impact on how individuals keep up to date with current affairs.

The quality of written communication will be assessed in the answer to this question. [11]

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END OF QUESTION PAPER

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