

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
A2 GCE
G063/01
INFORMATION AND COMMUNICATION
TECHNOLOGY
ICT Systems, Applications and
Implications

TUESDAY 17 JUNE 2014: Morning
DURATION: 2 hours
plus your additional time allowance

MODIFIED ENLARGED

Candidate forename		Candidate surname	
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Centre number						Candidate number				
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Candidates answer on the Question Paper.

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

None

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the boxes on the first page. 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).

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 (*).

Any blank pages are indicated.

SECTION A

Answer ALL questions

- 1 Describe the purpose of the following types of software.**

Operating System

Utility

Application

[6]

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

1 _____

2 _____

[4]

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

Describe distributed processing.

[4]

[4]

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

[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.

[illegible]

[6]

8 Describe TWO advantages and ONE disadvantage to a business of backing up its data online.

Advantage 1 _____

Advantage 2 _____

Disadvantage _____

[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.

[4]

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

1 _____

2 _____

3 _____

[6]

10 24-7 News provides an extranet.

Explain TWO advantages of an extranet to 24-7 News.

1 _____

2 _____

[4]

11 24-7 News stores data on its servers.

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

1 _____

2 _____

[4]

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

1 _____

2 _____

[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 _____

Testing _____

Installation _____

[6]

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

[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.

1 _____

2 _____

[4]

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

1 _____

2 _____

[4]

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

[4]

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

[4]

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

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

1 _____

2 _____

[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]

14* Explain the implications to 24-7 News of its reporters being able to use mobile technology to communicate from anywhere in the world.

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

[illegible]

[illegible]

QUESTION 15 BEGINS ON PAGE 26

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]

[illegible]

[illegible]

END OF QUESTION PAPER

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