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Centre Number						Candidate Number				
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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
ADVANCED SUBSIDIARY GCE**

G061

**INFORMATION AND COMMUNICATION
TECHNOLOGY**

Information, Systems and Applications

THURSDAY 14 JANUARY 2010: Afternoon

DURATION: 2 hours

SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

Candidates answer on the Question Paper

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

None

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

- **Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes on the first page.**
- **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.**
- **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.**

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A company manufactures electronic tills for use in shops.

The company is producing a user guide to using the tills in shops.

1 (a) Describe TWO advantages of using direct sources to gather information to be included in the user guide.

Advantage 1 _____

Advantage 2 _____

_____ [4]

(b) The user guide contains information. The user will convert the information into knowledge.

Define what is meant by the term knowledge.

_____ [2]

(c) Describe, using examples related to the user guide, how the following can affect the quality of information:

Level of detail _____

Presentation _____

Relevance _____

[6]

(d) Identify ONE personnel, ONE software and ONE consumable cost that the company would incur when producing the user guide.

Personnel _____

Software _____

Consumable _____

_____ [3]

2 Every evening the user guide is backed up.

(a) What is a backup?

_____ [1]

(b) Give ONE situation where the company might need to use the backup.

_____ [1]

(c) The company has chosen to use a USB memory stick for storing the backup.

Explain why this is an appropriate storage device to use.

_____ [2]

3 The company owns several standalone computers, each with a printer and connection to the internet. Each computer has an operating system and utility software installed.

(a) Describe ONE role of the operating system.

[2]

(b) A utility program installed on the computers is anti-virus software.

Identify TWO other utility programs that could be installed on the computers.

Utility 1 _____

Utility 2 _____

[2]

(c) Identify TWO specialist software applications that could be used by physically disabled users.

Application 1 _____

Application 2 _____

[2]

(d) Identify TWO output devices that could be used with an electronic till.

Device 1 _____

Device 2 _____

_____ [2]

(e) Describe TWO reasons why the company's computers should be networked.

Reason 1 _____

Reason 2 _____

_____ [4]

The company has decided to write a database to store information about its sales.

4 The entities that will be used in the database are:

CUSTOMER: A list of the customers that have purchased tills from them

TILL: A list of tills that is produced by the company

SALESPERSON: The member of the company who was responsible for the sale

ORDER: The details of the orders placed by the company

ORDER_LINES: The details of the individual tills that make up each order

(a) Draw the Entity Relationship Diagram (ERD) making sure that the degree of each relationship is identified.

(b) Identify TWO characteristics of data in second normal form (2NF).

Characteristic 1 _____

Characteristic 2 _____

_____ [2]

(c) The telephone number field in the CUSTOMER entity has the data type text.

Explain why text has been chosen as the data type for the telephone number.

_____ [2]

(d) Identify and describe TWO different validation routines that could be used for the telephone number field.

Routine 1 _____

Routine 2 _____

_____ **[4]**

5 The company has created a database input form for entering customers' details.

Explain THREE advantages of tailoring the form.

Advantage 1 _____

Advantage 2 _____

Advantage 3 _____

[6]

6 The company uses a spreadsheet to model future sales.

(a) The company can use formulae and functions within the software to create what-if calculations.

Describe TWO other characteristics of spreadsheet software that the company could use to model future sales.

Characteristic 1 _____

Characteristic 2 _____

_____ **[4]**

(b) Explain THREE advantages to the company of using spreadsheet software to answer what-if questions.

Advantage 1 _____

Advantage 2 _____

Advantage 3 _____

[6]

7 The company uses a computerised stock control system.

Describe the characteristics of a stock control system.

[6]

8 The company has a number of applications packages installed on its computers.

(a) Identify tasks that the following could be used for.

Desktop Publishing Software _____

Graphics Software _____

_____ **[2]**

(b) The company uses web page authoring software to create web pages to advertise its services to prospective customers. The web page authoring software allows the company to use macros when developing web pages.

Describe TWO advantages to the company of being able to use macros in web page authoring software.

Advantage 1 _____

Advantage 2 _____

_____ **[4]**

9 The company has created a style sheet for the design of all letters it sends to customers.

(a) Identify THREE elements that could be included in the style sheet.

Element 1 _____

Element 2 _____

Element 3 _____

_____ **[3]**

(b) Describe the difference between a style sheet and a template.

_____ **[2]**

(c) The company uses sections and footnotes in reports.

Describe the characteristics of sections and footnotes and give an example of how the company could make use of them.

Sections _____

Example of Use _____

Footnotes _____

Example of use _____

_____ **[6]**

10 The company has created a presentation that can be used at a trade fair. They could deliver the presentation using a computer and projector or printed acetate.

(a) Compare these two methods for delivering a presentation.

[3]

(b) The managing director of the company is giving a presentation to a group of potential customers at the trade fair.

Describe THREE advantages to the managing director of using manual transition to give the presentation.

Advantage 1 _____

Advantage 2 _____

Advantage 3 _____

_____ **[6]**

(c) Give an example where the use of automatic transition would be suitable.

[1]

(d) (i) Describe what is meant by a non-linear presentation.

[2]

(ii) Give ONE advantage of a non-linear presentation.

[1]

(iii) Give ONE example where the use of a non-linear presentation would be suitable.

[1]

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PLEASE TURN OVER FOR THE NEXT QUESTION

11 Discuss the impacts and consequences of the Regulation of Investigatory Powers Act (2000) on the employees of the company.

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

12 Discuss how possible future developments in communications technology could impact on how the company communicates with its customers.

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



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