Monday 23 January 2012 – Afternoon

A2 GCE APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

G054/01   Software Development

Candidates answer on the Question Paper.	
OCR supplied materials: • Instructions for Candidates G054/01/IC (inserted)	**Duration:** 1 hour 30 minutes
Other materials required: • Candidate's pre-prepared materials for pre-release tasks 1, 2, 3 and 4.	

Candidate forename		Candidate surname	

Centre number					Candidate number				

INSTRUCTIONS TO CANDIDATES

* The Insert will be found in the centre of this document.
* 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.
* Attach your pre-prepared materials for tasks 1-4.

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 **100**.
* No marks will be awarded for using brand names of software packages or hardware.
* The quality of your written communication will be assessed through Q6 and Q13.
* This document consists of **12** pages. Any blank pages are indicated.

For Examiner's Use		Max
Task 2		15
Task 3		10
Task 4		5
1		4
2		2
3		8
4		6
5		4
6		12
7		4
8		4
9		6
10		3
11		6
12		4
13		7
Total		**100**

OCR is an exempt Charity

Turn over

2

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Section A

This section relates to the case study on The Corner Shop.

1 One of the purposes of the new system for The Corner Shop is to solve the problems caused by the current system.

   Describe **two** other purposes of the new system.

   1 ....

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   2 ....

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   .... **[4]**

2 Part of the feasibility study is to define user requirements.

   Describe the user requirement that has been defined by the accounts staff.

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   .... **[2]**

3 Functional and non-functional requirements are investigated by the analyst during the feasibility study.

Describe **two** functional requirements that have been defined by each of the following:

(a) the warehouse manager

1 ....

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2 ....

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.... **[4]**

(b) the administration staff

1 ....

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2 ....

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.... **[4]**

4 The user will define process constraints which should be considered during the feasibility study.

(a) Describe the defined hardware constraint that relates to the owner.

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.... **[2]**

(b) (i) Identify **one** other process constraint, apart from software and hardware, that has been defined by The Corner Shop.

.... **[1]**

(ii) Describe how this has been defined by The Corner Shop.

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.... **[3]**

5 Identify and explain **one** problem caused by the current system which relates to the shop managers.

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Turn over

6 Following the development of the new system it will need to be implemented.

Explain the advantages **and** disadvantages to The Corner Shop of using the phased implementation method.

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

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.... **[12]**

7 During the feasibility study the processes carried out in the warehouse could be observed.

Describe **one** advantage and **one** disadvantage of using observations as an investigation method.

Advantage ....

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Disadvantage ....

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.... **[4]**

8 The increased security of the data and information held on the computers at The Corner Shop has been defined as one of the user requirements.

Identify and explain **two** physical security measures that could be used by The Corner Shop.

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2 ....

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.... **[4]**

9 The shop managers will be using the new IT equipment in the shops.

   (i) Identify the Act that relates to the use of IT equipment.

      .... **[1]**

   (ii) Explain the actions that must be taken by The Corner Shop to meet the requirements of this Act in relation to IT equipment.

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      .... **[5]**

SECTION B

You do not need the case study or your notes to answer these questions.

10 During the design of a new system a physical design specification is developed.

Identify **three** components of the software specification part of the physical design specification.

1 ....

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2 ....

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3 ....

.... **[3]**

11 Following the development and implementation of a new system, documentation is passed to the user. One set of documentation is the test plans, data and logs.

(i) Describe how this documentation could be used.

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.... **[4]**

(ii) Explain why this documentation should be passed to the end-user of a system.

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.... **[2]**

12 Entity relationship diagrams (ERDs) are used to model data.

Draw and label **two** relationships that can be used in an ERD.

[4]

13 Evaluate the use of data flow diagrams (DFDs) as a method of modelling data flows within a system.

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

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