OCR
RECOGNISING ACHIEVEMENT

ADVANCED GCE

APPLIED INFORMATION
AND COMMUNICATION TECHNOLOGY
Unit 15: Software Development

G054

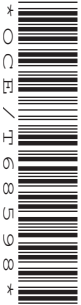Candidates answer on the question paper

OCR Supplied Materials:
*   Candidates Instructions G054/IC (inserted)

Other Materials Required:
*   Candidates pre-prepared materials

Thursday 4 June 2009
Afternoon

Duration: 1 hour 30 minutes

G054

Candidate Forename		Candidate Surname	

Centre Number						Candidate Number				

INSTRUCTIONS TO CANDIDATES

*   Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
*   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.
*   Do **not** write in the bar codes.
*   Write your answer to each question in the space provided, however additional paper may be used if necessary.
*   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 Q8.
*   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		7
2		7
3		5
4		4
5		6
6		3
7		3
8		12
9		3
10		2
11		6
12		7
13		5
Total		**100**

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Section A

This section relates to the case study on Rods Recycling.

1   One of the purposes of the new system for Rods Recycling is to produce reports for the owner.

 (a) Describe **two** other purposes of the new system.

 Purpose 1 ....

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 ....

 Purpose 2 ....

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 .... **[4]**

 (b) Explain why it is important to clearly define the purpose of the new system for the owner of Rods Recycling.

 ....

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 .... **[3]**

2 Functional and non-functional requirements are defined during the development of the feasibility study.

Explain, using examples from Rods Recycling, the following components of the feasibility study.

(i) Functional requirements ....

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....

.... **[3]**

(ii) Non-functional requirements ....

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.... **[4]**

3 The owner of Rods Recycling has defined process constraints to be considered during the development of the feasibility study.

(a) Describe **one** hardware constraint that has been defined by Rods Recycling.

....

....

....

.... **[2]**

(b) (i) Identify **one** process constraint, apart from hardware and software, that has been defined by Rods Recycling.

.... **[1]**

(ii) Describe how this has been defined by Rods Recycling.

....

....

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.... **[2]**

4 Some of the problems caused by the current system relate directly to the recycling boxes and containers.

Describe the problems relating to the recycling boxes and containers.

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.... **[4]**

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5 As part of the feasibility study, recommendations about software are made.

Describe **two** advantages and **one** disadvantage of recommending off-the-shelf software for Rods Recycling.

Advantage 1 ....

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Advantage 2 ....

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Disadvantage ....

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.... **[6]**

6 Statements for customers detailing their recycling bonuses are produced at the administration office.

Identify the most suitable device for this task, justifying your choice.

Device ....

Justification ....

....

....

.... **[3]**

7 Observation is one method that can be used when investigating the system at Rods Recycling.

Explain why this method of investigation would be suitable for use at the yard.

....

....

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.... **[3]**

8 Following development, the new system will need to be implemented.

Explain the advantages and disadvantages to Rods Recycling of using the parallel implementation method.

The quality of your written communication will be assessed through this question.

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.... **[12]**

9 The owner of Rods Recycling is concerned that the new system will be able to cope with the planned expansions of the business.

Identify and explain the type of maintenance that will be needed.

Type ....

Explanation ....

....

....

.... **[3]**

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 **two** components of the software specification part of the physical design specification.

Component 1 ....

....

Component 2 ....

.... **[2]**

11   Following the development and implementation of a new system, documentation is passed to the user.

Explain why the following pieces of documentation should be passed to the user of a system.

   (i)   test plans, data and logs ....

....

....

....

.... **[3]**

   (ii)   user manuals ....

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.... **[3]**

12 A company sells revision guides through its website. Orders over £100 are given a 5% discount. A charge of £5.00 is added for standard delivery. However, if express delivery is required then a charge of £10.00 is added. A delivery note is printed and included with the books.

Draw a flowchart to show the processing of a customer's order.

[7]

13 Evaluate the benefits to a **client** of using an informal method of modelling data flows within a system.

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.... **[5]**