OCR
RECOGNISING ACHIEVEMENT

H

GENERAL CERTIFICATE OF SECONDARY EDUCATION

INFORMATION AND COMMUNICATION TECHNOLOGY

2359/02

Paper 3
(Higher Tier)

Wednesday 14 January 2009
Morning

Duration: 1 hour 15 minutes

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.

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 **60**.
* This document consists of **8** pages. Any blank pages are indicated.

Turn over

1 Tick **one** box in each row to show whether the statement is true or false.

Statement	True (✓)	False (✓)
A check digit checks how many digits there are in a number		
A length check is used to limit the number of characters entered		
A range check prevents numbers outside a range being entered		
An invalid character check makes sure names are correct		

[4]

2 A small business wants to convert its manual payroll system to a computerised one.

Tick **three** reasons why they would implement this using parallel running rather than direct changeover.

	(✓)
Documentation of the system is not required.	
It is easier to modify the system and still produce the payroll.	
Not all workers will need training. They can learn as they go along.	
Their total wage bill will be lower.	
There is no delay before the new system is fully operative.	
They still have the manual system to use if the new system fails.	

[3]

3 Identify the differences between RAM and ROM and state a use for each type of memory.

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.... [4]

4 A car manufacturer has introduced the use of robots on its production lines.

(a) Describe **four** ways the workers have been affected by the use of robots.

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.... **[4]**

(b) Identify **two** tasks that the robots might carry out.

Task 1 ....

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Task 2 ....

.... **[2]**

(c) Give **one** advantage and **one** disadvantage to the company of using robots on its production lines.

Advantage ....

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Disadvantage ....

.... **[2]**

5 Explain why a club might use mailmerge to produce letters to send to its members rather than typing each letter individually.

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.... **[2]**

6 An ICT system is to be introduced to deal with examination marks. Before the system is implemented it has to be tested.

Explain what is meant by normal test data, abnormal test data and extreme test data, using examples for an examination marked out of 60.

Normal test data ....

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Abnormal test data ....

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Extreme test data ....

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.... **[6]**

7 A small business is to be computerised.

(i) Give **four** methods of collecting information about the existing system.

Method 1 ....

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Method 2 ....

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Method 3 ....

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Method 4 ....

.... **[4]**

(ii) The business has three workers who work in the office all day and a large number of van drivers who are rarely in the office.

Explain, with reasons, which of the methods you have given would be most suitable for collecting information from

office workers ....

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van drivers ....

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.... **[4]**

8 Most organisations keep personal data about their employees on computer.

Discuss the **effectiveness** of the methods which are used to ensure this data is kept secure.

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.... **[6]**

Turn over

9 A doctor uses an expert system to help with the diagnosis of illnesses.

(a) Describe the use of such a system including the computer processing involved.

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.... **[4]**

(b) Identify **two** other applications which make use of expert systems.

Application 1 ....

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Application 2 ....

.... **[2]**

10 Explain why the storage media DVDs and CDs are used in addition to a fixed magnetic disk in a computer system.

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.... **[5]**

11 The table below shows part of a database of books.

Bar Code	Book Title	Price (£)	ID number
9780340800065	ICT for GCSE	14.95	04/0121
9780521545402	Computer Studies and IT	12.99	05/1571
9780748791163	AS ICT	10.95	06/3428
9780521753609	Teaching and Assessing Skills	7.99	02/2381

For each field, discuss the suitability of different types of validation check.

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.... **[8]**

Turn over

If you use this lined page to complete the answers to any question, the question number **must** be clearly shown.

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