

Surname	Centre Number	Candidate Number
Other Names		2



GCE AS/A level

1241/01

**INFORMATION AND
COMMUNICATION TECHNOLOGY – IT1
Information Systems**

P.M. MONDAY, 3 June 2013

2¼ hours

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1	6	
2	8	
3	4	
4	6	
5	8	
6	4	
7	6	
8	18	
9	4	
10	16	
Total	80	

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** questions.

Answers should be written in the spaces provided.

Where the space is not sufficient for your answer continue the answer at the back of the book, taking care to number the continuation correctly.

The intended marks for questions or part questions are given in brackets []. You are advised to divide your time accordingly. The total number of marks available is 80.

You are reminded of the necessity for good written communication and orderly presentation in your answers.

Quality of written communication will be assessed in question 8.

1241-010001

SECTION A

Answer all questions.

1. An ICT system needs a good Human Computer Interface (HCI). For **each** of the following HCI give an example of *how it could be used* and also **one** advantage and **one** disadvantage.

(a) Voice interfaces.

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(b) Touch sensitive screens.

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2. Good quality information is needed to make informed decisions.

(a) *Other than 'complete'*, describe **four different** characteristics of good quality information. [4]

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(b) Describe using *distinctly different* examples, **two** of the costs involved in getting good quality information. [4]

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3. Name and describe **two different** crimes covered by the Computer Misuse Act, illustrating your answer with distinct examples. [4]

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4. A company uses word processing/DTP software. Define **each** of the following functions of word processing/DTP software and give an *appropriate* example of how **each** can be used by the company. [6]

(a) Templates.

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(b) Macros.

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(c) Mailmerge.

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5. (a) Validation is very important in modern data processing systems.

(i) Define what is meant by the term 'validation'. [1]

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(ii) Using an example, name and describe, a validation method that could be used in a student record keeping system. [3]

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(b) Other than the data itself, describe **four** factors that could affect the efficiency of data processing systems. [4]

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6. Listed below are four features of a CAD package.

hatching/rendering

wiredrawing

walkthrough

rotate

Describe how **each** could be used by an architect when designing a house.

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7. Schools and colleges make use of distance learning **and** Computer Assisted Learning (CAL) software.

(a) Describe **two** advantages and **one** disadvantage of *distance learning*. [3]

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(b) Describe **two** advantages and **one** disadvantage of *CAL* software. Do not give the same advantages and disadvantage as in part (a). [3]

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8. A multi-national supermarket company has many branches.

(a) The supermarkets make use of *barcodes* for recording sales. Describe what a barcode on a product is and give **one** advantage and **one** disadvantage of using barcodes to input data in the supermarkets. [4]

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(b) *Just in time* control systems are used extensively for stock control in the supermarkets. Describe how 'just in time' stock control works after a barcode is scanned at a Point of Sales (POS) terminal. [4]

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(d) The company also has an *on-line shopping* facility. Describe **four different** benefits that on-line shopping offers the **company** and its **customers**. [4]

A series of 20 horizontal dotted lines for writing the answer.

(18)

SECTION B

Answer all questions.

9. Simulation modelling is very important in weather forecasting. Describe how the models are created and give **one** advantage and **one** disadvantage that simulation modelling has brought to weather forecasting. [4]

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**YOU MUST REFER TO YOUR OWN SPREADSHEET TO ANSWER
THE FOLLOWING QUESTION.**

**IF NO SPREADSHEET EVIDENCE IS SUBMITTED THEN NO MARKS
CAN BE AWARDED.**

**MAKE SURE THAT YOU SHOW IN YOUR ANSWER WHERE THE
FUNCTIONS/FORMULAS CAN BE FOUND IN YOUR SPREADSHEET.**

- 10.** (a) Describe the purpose of **two** functions from the list below, which you have used in your spreadsheet. [2×2]

Single IF, Multiple IF, DATE, ROUND

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- (b) Describe the purpose of a VLOOKUP function you used in your spreadsheet. [3]

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(c) Describe a validation method you used to ensure that invalid data was not used in your spreadsheet. [3]

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(d) Describe the purpose of:

(i) A graph, you used in your spreadsheet. [2]

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- (ii) Two other functions/formulas you used in your spreadsheet.
You may not use any function mentioned in 10(a), 10(b) or 10(c).

[2×2]

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END OF PAPER

**ENSURE YOU ATTACH THE PRINTOUTS OF YOUR SPREADSHEET
TO YOUR EXAMINATION ANSWER PAPER.**

Examiner
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A series of horizontal dotted lines for writing, spanning most of the page width.