

Candidate Name	Centre Number	Candidate Number
		2



GCE AS/A level

1241/01

**INFORMATION AND
COMMUNICATION TECHNOLOGY**

IT1

INFORMATION SYSTEMS

A.M. TUESDAY, 7 June 2011

2¼ hours

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.

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

SECTION A

Answer all questions.

1. Several types of Human Computer Interfaces (HCIs) are used with computer systems. Each type of HCI provides specific benefits to the user. Describe a sensible different use and benefit, for each type of HCI listed below.

(a) Biometric devices [2]

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(b) Touch-sensitive screens [2]

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(c) Graphical User Interface (GUI) [2]

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2. Good quality information must use accurate and valid data.

(a) Explain what is meant by the term *accurate* data. [1]

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(b) Data may pass a validity check but may not be accurate. Using a suitable example, explain the difference between validity and accuracy. [2]

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(c) Discuss, using suitable examples, **two** ways in which good quality information can add value to an organisation by aiding the decision making process. [2 × 2]

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3. A student has been asked to find information on alternative energy sources. One method of finding such information is to use books from the school library. State **two** different electronic methods of finding this information and for each, describe **one** distinct advantage of using this method over using a text book. [4]

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4. Many schools now make increasing use of distance/online learning **and** computer assisted learning (CAL) software.

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

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(b) Give **two** advantages and **one** disadvantage of CAL software. Your answer must be different to those in part (a). [3]

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5. Schools are making an increasing use of word processing and DTP software to help with their administration. Some of the functions of the programs are mentioned below. State the purpose of each function and give an appropriate example of its use in a school.

(a) Mailmerge [2]

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(b) Template [2]

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(c) Macro

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6. Expert systems now have an important role in Health Care.

(a) Define what is meant by an expert system.

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(b) Describe the advantages and disadvantages for the use of expert systems in Health Care.

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7. Other than the speed of processing, describe **three** advantages of ICT over manual methods of processing using a suitable distinct example in each case. [6]

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8. ICT has had a huge impact on *home entertainment*.

(a) Describe, using distinctly different examples, **four** developments and the benefits that these have brought to home entertainment. [12]

Dotted lines for writing.

SECTION B

Answer all questions.

- 9. (a) Define what is meant by *simulation modelling*. [1]

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- (b) Describe a specific use of simulation modelling for financial forecasting, and give one advantage and one disadvantage for this use. [3]

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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 PROCESSES, FUNCTIONS/FORMULAS CAN BE FOUND IN YOUR SPREADSHEET. FOR EXAMPLE PAGE 6 CELL D4.

- 10. (a) Describe the purpose or function of **two** different *functions/features* from the following list you used in your spreadsheet: [4]

Single IF, Multiple IF, DATE, ROUND, Absolute referencing

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