GCE AS/A level

1241/01

INFORMATION AND COMMUNICATION TECHNOLOGY – IT1

Information Systems

A.M. MONDAY, 1 June 2015

2 hours 15 minutes plus your additional time allowance

Surname _____

Other Names _____

Centre Number _____

Candidate Number 2 _____

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

INSTRUCTIONS TO CANDIDATES

Use black ink, black ball-point pen or your usual method.

Write your name, centre number and candidate number in the spaces provided on the front cover.

Answer ALL questions.

Answers should be written in the spaces provided.

Where the space is not sufficient for your answer use a continuation sheet, 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(b).

Make sure you hand in your spreadsheet with this booklet at the end of the examination.

SECTION A

Answer ALL questions.

1. **The purpose of a good HUMAN COMPUTER INTERFACE (HCI) is to make it as easy as possible for a person to use a computer system. The use often decides which HCI is the most suitable.**

   Describe an actual use and an appropriate advantage for EACH of the following HCI.

(a) **Command line   [2]**

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1(b)   Speech recognition system   [2]

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1(c) Game playing device   [2]

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6

2(a) **Good quality information is needed to make informed decisions. Other than ACCURATE or COMPLETE, describe TWO other different characteristics of good quality information. Illustrate EACH characteristic you have described with an appropriate and DISTINCTLY DIFFERENT example.   [2×2]**

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2(b) **Good quality information is vital to the success of an organisation and helps them in the decision making process. Other than MONITORING PROGRESS, and using examples, explain TWO ways in which good quality information can add value to an organisation.   [2×2]**

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3.   **A family is considering linking up its stand-alone computers to form a LOCAL AREA NETWORK (LAN).**

Describe the ADVANTAGES and DISADVANTAGES for the family of using a home network of this type.   [4]

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4. **Modern hospitals rely on databases as part of their administration systems. Define for a novice user what is meant by EACH of the functions below:**

- **Query**
- **Report**
- **Import/Export**

and for EACH function give an appropriate use in hospital administration/record keeping.   [3×2]

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5. **The modern business world could no longer exist without ICT systems. Other than FASTER PROCESSING of data and SPEED OF COMMUNICATIONS, describe using suitable examples in each case, FOUR other advantages of ICT over manual methods of data processing.**

[4×2]

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6. **Other than the DATA ITSELF and HARDWARE, describe TWO factors that could have an impact on the efficiency of a data processing system.** **[2]**

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7. **Expert systems are used to help diagnose patients' illnesses. Describe the THREE main components of an expert system and give THREE benefits and TWO drawbacks of using an expert system for patient diagnosis.   [8]**

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8. **A multinational electronic goods company uses automatic stock control and allows its customers to pay in a variety of ways.**

(a) **(i)** **The branches make use of barcodes for entering product data. Describe in detail what a barcode is and state THREE items that are contained in a barcode. [3]**

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8(a) **(ii)** **State a benefit and a drawback of using barcodes for entering product data.** **[2]**

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8(b) **The electronic goods company uses automatic 'Just in time' control systems for their stock control. Describe what happens in a 'Just in time' stock control system after a product's barcode is scanned, giving THREE benefits and THREE drawbacks of this system for the company.   [10]**

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8(c)   (i)   **State what is meant by the term EFTPOS.**

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   (ii)   **Give an advantage to the company and an ADVANTAGE to the customer of using EFTPOS.   [2]**

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18

SECTION B

Answer ALL questions.

9.   **Spreadsheets can be used for many purposes and tasks. Describe how a company can use a spreadsheet for TWO DIFFERENT tasks and for EACH of the tasks you have described, give a DIFFERENT benefit of using a spreadsheet to complete EACH task.   [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 processes, functions/formulas can be found in your spreadsheet.
For example page 6 cell d4.

10(a) Describe in detail the purpose of TWO functions from list A and ONE function from list B, which you have used in your spreadsheet.   [6]

A: SUM, COUNT, MAX, MIN, AVERAGE, RAND
B: Single IF, Multiple IF, DATE, ROUND

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10(b) **Describe one macro you used in your spreadsheet, stating why you used it.** **[2]**

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10(c) Describe TWO methods of SIMPLIFYING DATA ENTRY you used in your spreadsheet.   [2×2]

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10(d) **Describe, giving the purpose, TWO different functions or processes you used in your spreadsheet. [2×2]**

In your answer do NOT describe any formula, function or process listed in 10(a) or mentioned in your answers to 10(b) or 10(c).

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16

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

END OF PAPER