Surname

Centre Number Candidate Number

Other Names



## GCE AS/A level

1241/01

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# INFORMATION AND COMMUNICATION TECHNOLOGY – IT1 Information Systems

A.M. MONDAY, 6 June 2016

2 hours 15 minutes

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	10	
2.	6	
3.	5	
4.	6	
5.	6	
6.	3	
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 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(a).

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

	SECTION A	Examiner only
	Answer all questions.	
1.	The relationship between data, information and knowledge is important.	
	<ul> <li>(a) Give two different examples which illustrate the relationship between data knowledge.</li> </ul>	and 2 × 2]
	(b) Data stored in a database is often encoded because it is faster to type in. Other tha speed of data entry, give two reasons why data should be encoded before it is en into a database and describe, using different examples, two problems associated encoding data.	tered

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2. There are several ways a human can interface with a computer. Give an appropriate *different* application (use), an advantage and a disadvantage, for **both** of the following Human Computer Interfaces (HCIs).

Graphical User Interface	Command Line Interface	[2 × 3]

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[5]

disadvantages of email to an organisation.

**4.** A firm of estate agents wants to improve its use of *presentation software*. Describe to the manager of the estate agents, what each of the following features are and explain how **each** one could benefit the firm:

	templates	animated transitions	data compression	[3 × 2]
·····				

3.

Other than the speed of transmission and the ability to attach files, describe the advantages and

	Examiner only
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Business has benefited from using ICT to process large amounts of data rather than using manual methods. Other than <i>repetitive processing</i> and <i>the speed of searching and processing</i> , describe <b>three</b> other advantages of using ICT to process data and illustrate each advantage	1241
with a <i>different</i> example. [3 × 2]	
with a <i>different</i> example. [3 × 2]	
with a <i>different</i> example. [3 × 2]	
with a <i>different</i> example. [3 × 2]	
with a <i>different</i> example. [3 × 2]	
with a <i>different</i> example. [3 × 2]	
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5.

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Examiner only

Define what is meant by the term *data verification* and describe a method of data verification that can be used in on-line shopping. [3] 6. Describe the use and impact ICT has had upon *music* and *photography* as a form of home entertainment and leisure.  $[2 \times 3]$ 7. [2 × 3] ..... ..... .....

Examiner only Schools and colleges make use of ICT for many purposes. One use is to register pupils. Describe four different computer based methods of (a) registration used in schools and colleges and discuss six advantages computer based registration systems give the school or college. [10 QWC] ..... ..... ..... ..... ..... .....

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8.

(b)	Schools and colleges also make use of <i>distance learning</i> and <i>Computer Assisted Learning</i> ( <i>CAL</i> ) software. Describe <b>three</b> advantages and <b>one</b> disadvantage of <i>distance learning</i> and <b>three</b> <i>different</i> advantages and a <i>different</i> disadvantage of <i>CAL</i> software. [8]	Examiner only
•••••		
		18

# SECTION B Answer all questions. 9. Weather forecasting makes extensive use of simulation modelling. Give two advantages and two disadvantages of using simulation modelling for weather forecasting. [4]

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	Μ	YOU MUST REFER TO YOUR OWN SPREADSHEET TO ANSWER THE FOLLOWING QUESTION. IF NO SPREADSHEET EVIDENCE IS SUBMITTED THEN NO MARKS CAN BE AWARDED. AKE SURE THAT YOU SHOW IN YOUR ANSWER WHERE THE PROCESSES, FUNCTIONS/FORMULAS CAN BE FOUND IN YOUR SPREADSHEET. FOR EXAMPLE PAGE 6 CELL D4.	Examiner only
10.	(a)	Describe the purpose of <b>two</b> functions from the list below, which you have used in your spreadsheet. $[2 \times 2]$	
	· · · · · · · · · · · · · · · · · · ·	SUM, COUNT, MAX, MIN, AVERAGE, RAND	
		Describe the purpose of a VLOOKUP function you used in your spreadsheet and give two advantages of using the VLOOKUP function. [3]	

Describe a validation method you used to ensure that invalid data was not used in your

Describe the purpose of: (d) a macro, you used in your spreadsheet; [2] (i) (ii) a search, you used in your spreadsheet; [2] (iii) a graph, you used in your spreadsheet. [2] ENSURE YOU ATTACH THE PRINTOUTS OF YOUR SPREADSHEET TO YOUR **EXAMINATION ANSWER PAPER.** 

### **END OF PAPER**

(C)

spreadsheet.

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only

[3]

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