

Surname	Centre Number *	Candidate Number
Other Names		2



**GCE AS/A level**

1241/01



S16-1241-01

**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	
<b>Total</b>	<b>80</b>	

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**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**

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Answer **all** questions.

1. The relationship between data, information and knowledge is important.

(a) Give **two different** examples which illustrate the relationship between data and knowledge. [2 × 2]

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(b) Data stored in a database is often encoded because it is faster to type in. Other than *the speed of data entry*, give **two** reasons why data should be encoded before it is entered into a database and describe, using different examples, **two** problems associated with encoding data. [6]

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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).

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Graphical User Interface	Command Line Interface
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[2 × 3]

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3. Other than *the speed of transmission* and *the ability to attach files*, describe the advantages and disadvantages of email to an organisation. [5]

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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]

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

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6. 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]

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7. Describe the use and impact ICT has had upon *music* and *photography* as a form of home entertainment and leisure. [2 × 3]

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**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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**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 of **two** functions from the list below, which you have used in your spreadsheet. [2 × 2]

**SUM, COUNT, MAX, MIN, AVERAGE, RAND**

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- (b) Describe the purpose of a VLOOKUP function you used in your spreadsheet and give **two** advantages of using the VLOOKUP function. [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 macro, you used in your spreadsheet; [2]

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(ii) a search, you used in your spreadsheet; [2]

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(iii) a graph, you used in your spreadsheet. [2]

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

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**END OF PAPER**

