



**GCE AS/A level**

**1241/01**

**INFORMATION AND COMMUNICATION**

**TECHNOLOGY – IT1**

**Information Systems**

**A.M. MONDAY, 6 June 2016**

**2 hours 15 minutes plus your additional  
time allowance**

**Surname** \_\_\_\_\_

**Other Names** \_\_\_\_\_

**Centre Number** \_\_\_\_\_

**Candidate Number 2** \_\_\_\_\_

**For Examiner's use only**

<b>Question</b>	<b>Maximum Mark</b>	<b>Mark Awarded</b>
<b>1.</b>	<b>10</b>	
<b>2.</b>	<b>6</b>	
<b>3.</b>	<b>5</b>	
<b>4.</b>	<b>6</b>	
<b>5.</b>	<b>6</b>	
<b>6.</b>	<b>3</b>	
<b>7.</b>	<b>6</b>	
<b>8.</b>	<b>18</b>	
<b>9.</b>	<b>4</b>	
<b>10.</b>	<b>16</b>	
<b>Total</b>	<b>80</b>	

## **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.**

## **4**

**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**

**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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**1(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).**

**Graphical User Interface**

**Command Line Interface [2 × 3]**

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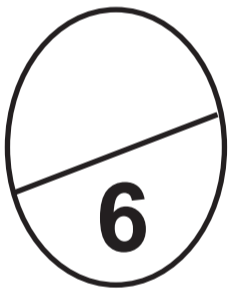
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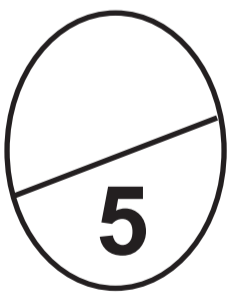
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4. A firm of estate agents wants to improve its use of PRESENTATION SOFTWARE. Describe to the manager of the estate agents, what each of the following features are and explain how EACH one could benefit the firm:

templates      animated transitions

data compression      [3 × 2]

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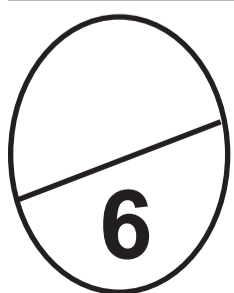
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**5. Business has benefited from using ICT to process large amounts of data rather than using manual methods. Other than REPETITIVE PROCESSING and THE SPEED OF SEARCHING AND PROCESSING, describe THREE OTHER advantages of using ICT to process data and illustrate each advantage with a DIFFERENT example. [3 × 2]**

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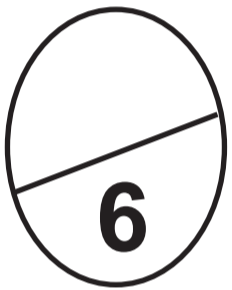


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**6. Define what is meant by the term DATA VERIFICATION and describe a method of data verification that can be used in on-line shopping. [3]**

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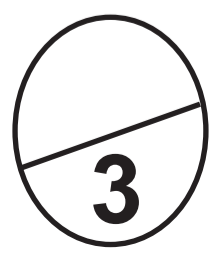
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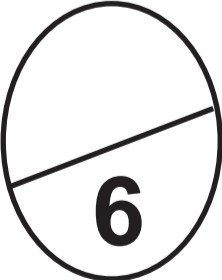
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**8. Schools and colleges make use of ICT for many purposes.**

**(a) One use is to register pupils. Describe FOUR DIFFERENT computer based methods of 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 DISTANCE LEARNING and COMPUTER ASSISTED LEARNING (CAL) software. Describe THREE advantages and ONE disadvantage of DISTANCE LEARNING and THREE DIFFERENT advantages and a DIFFERENT disadvantage of CAL software. [8]**

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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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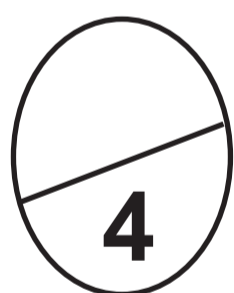
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**You must refer to your own spreadsheet to answer the following question.**

**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**









**10(d) Describe the purpose of:**

**(i) a macro, you used in your spreadsheet; [2]**

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

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**10(d) Describe the purpose of:**

**(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.**

**END OF PAPER**