GCE AS/A LEVEL – NEW

wjec cbac

2530U10-1

INFORMATION AND COMMUNICATION TECHNOLOGY – AS Unit 1
Information Systems

MONDAY, 4 JUNE 2018 – MORNING

2 hours 15 minutes

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	6	
2.	4	
3.	6	
4.	6	
5.	6	
6.	6	
7.	8	
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. If you run out of space, use the continuation page at the back of the booklet taking care to number the question(s) 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**.

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

SECTION A

*Answer **all** questions.*

1. Human Computer Interfaces (HCIs) have been developed to make it easier for people to work with computers. For **both** of the following HCIs describe a *suitable different* use and for each HCI, give **two different** advantages. [6]

Command Line Interface   Touch Sensitive Devices

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2. Two of the reasons that data is encoded, before being entered into a database, are to reduce transcription errors and take up less storage space on the hard drive. Give **two** *other* reasons why data should be encoded. In addition, other than coarsening data, state another problem associated with encoding data and illustrate this with a suitable example. [4]

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3. Securing networks and the transmission of data across networks is crucial to a successful business. Other than backups and physical security, discuss in detail, **three** methods that could be used to protect data being transmitted across a network. [6]

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4. The use of ICT for processing data is now very widespread. Other than the *data* itself and the *hardware*, describe **three** factors affecting the efficiency of data processing systems. [6]

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5. CAD and CAM are both used in design and manufacturing industries. For **both** CAD and CAM, give **two** advantages and **one** disadvantage each has brought to design and manufacturing. [6]

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6. A headmaster has decided that he wants to improve the use of presentation software by all staff. Describe to the school staff, what each of the following features are and explain the benefit of using each. [6]

Templates	**Animated Transitions**	**Creating a show**

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7. The interconnectivity of people and smart devices and their uses in the home, workplace and cities is often referred to as the 'Internet of Things' (IoT).
Describe **two** uses of the IoT, and give a specific advantage for each of those uses. In addition, give **two** general disadvantages of the IoT. [8]

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8. Computers are now widely used for teaching and learning in schools and colleges. Describe **six** *different* ways ICT is used to enhance teaching and learning, discussing their advantages and disadvantages. [18]

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SECTION B

*Answer **all** questions.*

9. A company has many applications for which it could use a spreadsheet. *Other than drawing graphs and charts,* give **two** different applications of a spreadsheet and give a specific benefit of using a spreadsheet for this task. Only give a benefit once. [4]

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Turn over.

**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
FUNCTIONS/FORMULAS CAN BE FOUND IN YOUR SPREADSHEET.**

10. *(a)* Describe the purpose of **two** functions from the list below, which you have used in your spreadsheet. [2 × 2]

SINGLE IF,   MULTIPLE IF,   DATE,   ROUND

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(b) Describe **two** validation methods you used to ensure that only valid data was used in your spreadsheet. [4]

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(c)   Describe the purpose of **two** macros you used in your spreadsheet.   [4]

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(d)   Describe the purpose of:

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

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    (ii)   relative cell referencing, 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

For continuation only.

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