Surname		Centre Number	Candidate Number
First name(s)			2

GCE AS/A LEVEL

wjec cbac

2530U10-1

Z22-2530U10-1

MONDAY, 23 MAY 2022 – MORNING

INFORMATION AND COMMUNICATION TECHNOLOGY – AS unit 1
Information Systems

1 hours 50 minutes

For Examiner's use only		
Question	**Maximum Mark**	**Mark Awarded**
1.	4	
2.	6	
3.	6	
4.	6	
5.	6	
6.	6	
7.	8	
8.	18	
Total	60	

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 60.

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**.

Answer **all** questions.

1. Data is a very valuable commodity.

    (a) Other than *accuracy,* give **two** reasons why data is encoded before it is entered into a
         computer.   [2]

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    (b) Other than *subjective value judgements*, give a problem associated with encoding data,
         illustrating this problem with a suitable example.   [2]

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4

2. There are different costs associated with getting good quality information. Give an example of
    both a human resource cost and a time cost for **each** of the following stages of getting good
    quality information.

    • Data collection

    • Data entry

    • Maintenance of data   [3 × 2]

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6

3. Using reliable information can improve the quality of decision making. Other than being *correctly targeted and complete*, describe **three** factors of good quality information using suitable examples. [3 × 2]

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Examiner only

4. Industry experts believe that the growth of the Internet of Things (IoT) will continue and by the end of 2022 there will be 20 billion connected devices.

Describe **two** different examples of the use of the IoT in the *home* and for each use give a different advantage. [2 × 3]

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5. A manager of a large supermarket company wants to improve the use of database software by administration staff. Describe to the staff what each of the following features are and give an example of the use of each feature in managing the supermarket. [3 × 2]

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

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6

6. A shop allows customers to use Near-Field Communications (NFC) payment systems.
Explain what is meant by NFC payment and give **four** advantages of using NFC payment.   [6]

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7. Robots are being more widely used in different areas of medical science. Describe in detail how medical robots are being used in both the areas of robotic surgery and rehabilitation, discussing the advantages and disadvantages that the use of robots brings to these areas of medical science. [8]

8

8. The use of IT in the home has continued to develop. Messaging and online services are now extensively used at home.

(a) Describe, using examples, **three** different types of messaging services used in homes and give an advantage for each. [9]

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(b)   Other than *banking and shopping*, describe the use of **four** different types of online
services which can be used from the home, giving a general disadvantage of online
services.   [9]

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18

END OF PAPER

For continuation only.

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