

*Answer three questions only. All questions carry equal marks.*

1. (a) Explain the term *most significant bit* as used in data representation.

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- (b) Convert the decimal number 357 to binary.

[Banzai]

- (c) Using the principle of  $352 = (357 - 5)$  and  $366 = (357 + 9)$ , convert the following decimals to binary:

- (i) 352-

[2 marks]

- (ii) 366

.....

[2 marks]

2. (a) List three examples of cybercrime.

i- Hacking

ii- Spamming

iii- Cyber stalk

[3 marks]

- (b) State:

- (i) three measures required to prevent computer crime;

[3 marks]

- (ii) four benefits of telesales.

3. (a) What is *asynchronous transmission*?

[4 marks]

- (b) Describe the following:  
(i) database server;

[2 marks]

- (ii) print server.

[4 marks]

4. (a) In a spreadsheet application, the value in cell A1 is 10, A2 is 20, A3 is 30 and A4 is 15. Write a formula/function to:  
(i) add 10 marks to the value in each cell;

(i) add 10 marks to the value in each cell.

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[2 marks]

- (ii) compute the average of the values in the cells A1 to A4.

[2]

[2 marks]

- (b) List the steps used in the creation of relationships in MS Access.

[4 marks]

- (c) A user has open two tables and want to create a relationship between them in MS Access. State the error message that appears on the screen of the computer.

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[2 marks]

5. (a) State one difference between *pseudocode* and *flowchart*.

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[2 marks]

- (b) Draw the flowchart symbol to represent a  
(i) database;

[1 mark]

- (ii) database storage;

[1 mark]

- (iii) input/output.

[1 mark]

- (c) Use pseudocode to represent the QBASIC program below:

```
CLS
LET SUM=0
FOR K=1 To 5
    LET SUM=SUM+NUM(K)
NEXT K
PRINT "TOTAL SUM IS", SUM
LET AVG=SUM/5
PRINT "THE AVERAGE IS",AVG
END
```

[5 marks]