

**SECTION A (20 marks)**

Answer all questions in this section.

I. For each of the items (i) - (x) choose the correct answer from among the given alternatives and write its letter beside the item number.

(i) The LET statement functions just like the

- A READ
- B DATA
- C INPUT
- D GOTO
- E ENTER.

(ii) What is the decimal representation of the hexadecimal number represented by E?

- A 8
- B 5
- C 14
- D 15
- E 12.

(iii) To skip one line before printing the PRINT statement is used together with a

- A comma
- B semicolon
- C colon
- D TAB statement
- E hyphen.

(iv) A variable usually refers to

- A a memory location
- B value of the variable
- C something whose value keeps on changing
- D any computer program
- E a computer virus.

(v) Eight characters form a

- A bit
- B byte
- C bite
- D bike
- E book.

(vi) The conditional sum wizard in Excel is best described as

- A an add-on
- B an add-in
- C a macro
- D a module
- E a data set.

(vii) In Excel a cell address is specified by a

- A box number
- B function
- C row or a column
- D column and a row
- E rectangular region.

(viii) Another name for temporary storage is the

- A secondary storage
- B main memory
- C auxiliary storage
- D magnetic tape
- E floppy diskette.

- (ix) A bootstrap is
- A a memory device
  - B a device to support the computer
  - C a small initialization program
  - D a startup error
  - E an error correction technique.
- (x) The physical components of a computer are called
- A hardware
  - B software
  - C input devices
  - D output devices
  - E storage media.

2. Match the responses in LIST B with the words/phrases in LIST A by writing the letter of the correct response beside the item number.

**LIST A**

- (i) Cold Boot
- (ii) Operating system
- (iii) Soft-copy
- (iv) Control unit
- (v) Compiler
- (vi) A group of related fields
- (vii) A hardware device for interfacing a telephone line and a computer *E*
- (viii) LAN
- (ix) A set of organized collection of logically related data
- (x) A program written for destructive purposes

**LIST B**

- A A program that translates the work program statements before execution.
- B Record
- C Trojan
- D Computer network which is confined in a small area
- E Modem
- F Output from the computer which has not been printed.
- G Restarting the computer
- H Database
- I Programming languages written for microcomputer
- J Handles the movement of data within the computer
- K Makes use of underlying hardware of the computer and manages resources
- L Permanent storage area in a computer
- M Virus
- N Turning on the computer from the cold
- O Spreadsheets
- P Starting the computer from off mode
- Q Controls only the input devices
- R Computer network which covers a large area
- S Unfinished work in the computer
- T Information

**SECTION B (40 marks)**

Answer all questions in this section.

3. (a) What is programming?  
(b) Name **two (2)** characteristics of structured programming.
4. (a) Draw the basic computer operation diagram.  
(b) Name **two (2)** devices for each component of the diagram in (a) above.
5. State and explain **four (4)** common wordprocessing features.
6. What is the difference between a programme and a process?
7. Correct the errors found in the following BASIC statements:
  - (a) LET A\*B = C
  - (b) FOR 10 = P TO 100
  - (c) LET D = SUPPLY
  - (d) LET 10B = X + Y.
8. (a) What is a syntax error?  
(b) What is the function of the END statement in a BASIC programme?
9. State **four (4)** differences between a computer and an electronic calculator.
10. What is the output of the following programme?

```
LET A = 4  
LET B = 3  
LET D = A  
PRINT A, B  
END.
```

11. Define the following terms:
  - (a) Analog computer.
  - (b) Digital computer.
  - (c) Pseudocode.
  - (d) An array.
12. Differentiate a "soft copy" from a "hard copy".

**SECTION C (40 marks)**

Answer **four (4)** questions from this section.

13. (a) Draw the DO WHILE and DO UNTIL flow charts.  
(b) What are the differences between DO WHILE and DO UNTIL loops?  
(c) State **four (4)** qualities of a good algorithm.

14. (a) Given **three (3)** numerical constants 2, 3 and 4, and write a BASIC programme to calculate their average.

(b) Write short notes on the two numeric constants used in BASIC.

(c) Write true or false for each of the following variable names:

(i) 3B            (ii) \$X            (iii) Q%            (iv) T2.

15. (a) What does each of the statements in the programme below do?

```
LET AGE = 23
PRINT "You have lived more than", AGE*365 "days"
END
```

(b) If DAY\$ looks like DIM DAY\$ (1 To 7), do you think that the following statement is correct?

DAY \$ (8) = "Memorial Day".

Explain.

16. (a) Why are subroutines important in BASIC programmes?

(b) How do internal or library functions differ from user defined functions? Give two (2) examples in each case.

17. (a) State **five (5)** rules that govern the choice of variable names.

(b) Why is it important to document every step in programme development?

(c) Define sorting as is used in programming.

18. (a) System development has two principal phases; systems analysis and systems design. Explain briefly what is done in each phase.

(b) How is a program tested?

(c) Dry run the following program and write the results:

```
CLS
A = 9
B = 8
IF A<12 AND B>14 THEN PRINT B
LET B = A + B
IF A + B <17 THEN PRINT A ELSE PRINT B
END
```