

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 DAYS (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
```