COMPUTER FUNDAMENTALS & PROGRAMMING

Note : Attempt five questions in all, selecting at least one quesstion from each section.

SECTION-A

1. (a) Explain working of computer with the help of a block diagram.

   (b) What is Flow chart? What are its uses? Draw a Flow chart to convert an integer decimal number into a binary number.

2. (a) What is a decision table? Explain various types of decision table. Draw a decision table to display grades of students.

   (b) Discuss the top-down and bottom-up design approaches. 8

3. (a) Differentiate between a CD-ROM and a WORM disk. Write some usage of each. 8

   (b) Write a short notes on:
   (i) Magentic disk
   (ii) Printer.

4. (a) Differentiate between following:
   (i) Machine Language, High Level Language and Assembly Language.
   (ii) Primary Memory and Auxliary Memory.

(b) What is a Trackball? How is it different from a Mouse?

5. (a) What is Modular programming? Discuss.

(b) What is an Algorithm? What are the characteristics necessary for a sequence of instructions to qualify as an algorithm?   8

SECTION-B

6. (a) What are the control structure available in Pascal? Explain using suitable example.   10

(b) Discuss the structure of a Pascal program.   6

7. Differentiate between the following using suitable examples:

(i) READ AND READLN

(ii) EOF AND EOLN

(iii) WRITE AND WRITELN

(iv) TRUNC AND ABS

(v) PRED AND SUCC.

8. (a) What is a function? How does it differ from a procedure?   6

(b) What is meant by recursion? Is recursion an essential programming technique? Also discuss mutual recursion.   10

9. (a) What is a packed array? How do packed arrays differ from ordinary arrays? What possible advantages and disadvantages are associated with the use of packed arrays?   10

(b) Summarize the rules associated with the use of standard procedures pack and unpack.   6

10. (a) What is the purpose of WITH structure? Summarize the rules for writing the WITH structure. Can multiple record names be included in a single WITH structure?   10

(b) What is meant by the variant part of record? How does the variant part differ from thr fixed part?

_ \\