

Bachelor of Science (B.Sc.I.T.) Semester—I Examination
PROGRAMMING METHODOLOGY IN “C”
Paper—II

Time : Three Hours]

[Maximum Marks : 50

- N.B. :—** (1) All questions are compulsory and carry equal marks.
 (2) Draw neat and well labelled diagrams wherever necessary.

EITHER

1. (a) Explain Basic structure of C program. 5
- (b) What is an algorithm ? Write an algorithm to find largest of three numbers. 5

OR

- (c) What is pseudo code ? Write a pseudo code to find factorial of given number. 5
- (d) What is flowchart ? Draw a flowchart to decide whether a number is prime or not. 5

EITHER

2. (a) Explain various data types in C. 5
- (b) Write a program in C to find sum of digits in given number (i.e. 234, 2 + 3 + 4). 5

OR

- (c) What are looping statements ? What do you mean by Entry-controlled and Exit-controlled loops ? Explain by giving suitable example. 5
- (d) Write a program in C to display following pattern :

```

1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
  
```

5

EITHER

3. (a) Explain storage classes in C. 5
- (b) What is Array ? Write a program in C to find smallest element in two dimensional array of size 3 × 3. 5

OR

- (c) Explain with suitable example :
 - (i) Function with argument and no return value
 - (ii) Function with no argument and no return value. 5
- (d) What is recursion ? Write a program to illustrate recursion function. 5

EITHER

4. (a) Define structure. Write down the syntax and example for structure. 5
- (b) State syntax and purpose of fopen() and fclose(). Illustrate their use giving suitable example. 5

OR

- (c) What is sequential access ? Differentiate between sequential access and random access. 5
- (d) What is Pointer ? Write a program to sum up array of ten elements using pointers. 5
5. (a) Explain selection logic with suitable example. 2½
- (b) Give the syntax and purpose of goto statement. 2½
- (c) Explain two dimensional array with example. 2½
- (d) Explain different file mode in C. 2½