

**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) Illustrate your answer with suitable diagrams wherever necessary.

**EITHER**

1. (a) What is flowchart ? Explain any four characteristics of flowchart. 5
- (b) Write an algorithm to find all prime numbers between 1 to 100. 5

**OR**

- (c) Explain iteration programming structure with suitable example. 5
- (d) Draw a flowchart to find factorial of a given number. 5

**EITHER**

2. (a) Explain different primary data types in C with example of each one. 5
- (b) Explain switch statement with suitable example. 5

**OR**

- (c) What do you mean by entry control and exit control loop ? Differentiate between while and do-while loop. 5
- (d) Write a program to print Fibonacci series : 1 1 2 3 5 ..... up to n terms. 5

**EITHER**

3. (a) What is an Array ? Explain declaration and initialization of single and two dimensional array with suitable examples. 5
- (b) Write a program to illustrate function with arguments and no return value. 5

**OR**

- (c) Write a program to find largest number in given array of N elements. 5
- (d) Explain "Recursive Function" with suitable example. 5

**EITHER**

4. (a) Explain Command Line Arguments with example. 5
- (b) Define pointer. Explain pointer arithmetic with example. 5

**OR**

- (c) What is difference between structure and union ? Explain with suitable examples. 5
- (d) Explain fprintf( ) and fscanf( ) with example. 5

5. (a) What is pseudo code ? Explain. 2½
- (b) Write purpose and syntax of if-else construct. 2½
- (c) Explain "Default Arguments" in function. 2½
- (d) Explain "Nesting of structures". 2½