Bachelor of Science (B.Sc.) IT
Semester–I (CBS) 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 labelled diagrams wherever necessary.

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EITHER

1. (a) What is an algorithm ? Write an algorithm to find out whether entered number is even or odd.   5

(b) Write short notes on :
(i) Iteration
(ii) Selection   5

OR

(c) What is flowchart ? Draw a flowchart to find out whether entered number is prime.   5

(d) Explain different characteristic of Pseudo Code. 5

EITHER

2. (a) What are operators in "C" ? Explain any four operators with example. 5

   (b) What is Library function ? Explain with example any two Library functions. 5

OR

   (c) What is Looping ? Explain do-while Loop. 5

   (d) What is type conversion ? Explain in detail why type conversion is important. 5

EITHER

3. (a) What is array ? Explain with example two dimensional array. 5

   (b) What are storage classes ? Explain. 5

OR

   (c) Write short notes on :

   (i) Strlen( )

   (ii) Strcmp( ) 5

   (d) What is recursive function ? Explain with example. 5

EITHER

4. (a) Explain the following terms :

   (i) Structure

   (ii) Pointer 5

   (b) Write a program to create a Structure Employee with following member : Employee Id, Employee Name, Employee Designation and Employee Salary. 5

OR

   (c) Write a 'C' program to demonstrate pointer to pointer. 5

   (d) Write short notes on :

   (i) Opening and closing a file

   (ii) Command line arguments 5

5. (a) What is sequence programming structure ? What are different problem solving techniques ? 2½

   (b) What are the bitwise operators available in C ? Explain any two of them with suitable examples. 2½

   (c) What is a user defined function ? Write a program to illustrate the function with argument and no return value. 2½

   (d) What is Union ? How Union is different from structure ? 2½