

Bachelor of Science (B.Sc.I.T.) Semester—I (C.B.S.) 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.

EITHER

1. (a) What is programming structures ? Explain selection and modular programming structure. 5
- (b) What is algorithm ? Write an algorithm to find the largest of three numbers. 5

OR

- (c) What are the advantages of writing an algorithm ? 5
- (d) Draw a flow chart to find whether the given number is positive or negative or zero. 5

EITHER

2. (a) What is operator ? Explain relational and logical operators in brief. 5
- (b) Explain nesting of IF statements. Explain with example. 5

OR

- (c) Write a program to find the roots of a quadratic equation. 5
- (d) What do you mean by branching statements ? Explain else....if ladder with syntax and example. 5

EITHER

3. (a) What is array ? Write a program to find maximum element of an array. 5
- (b) Differentiate between call by value and call by reference. 5

OR

- (c) Write a program to calculate factorial of given no. using recursive function. 5
- (d) Explain the following string functions :
 (i) strlen ()
 (ii) strcmp ()
 (iii) strcpy ()
 (iv) strcat ()
 (v) strrev (). 5

EITHER

4. (a) What is structure ? Give its memory allocation. How they are accessed in program ? Write structure for following fields of items :
 item_no, itemname, itemquantity and itemprice. 5
- (b) What is the use of pointer ? Explain void pointer with example. 5

OR

- (c) How we can open and close a file ? What are modes of operating data file in C-program ? 5
- (d) Differentiate between structure and union. Give example of structure and union. 5

5. Attempt **ALL** :

- (a) What is Pseudo Code ? 2½
- (b) What are relational operators supported by C ? 2½
- (c) How we can initialize 2D array ? 2½
- (d) List storage classes. Explain any one. 2½