

2071
B.E. (Biotechnology) Second Semester
ESC-X01: Programming for Problem Solving
(Common with Elec. Engg)

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) Write syntax to create and initialize a 2-D array.
- b) How trunc() function is different from append()?
- c) What is the significance of break and continue in C language.
- d) Differentiate recursion vs. iteration.
- e) How flowchart is different from a program? (5x2)

UNIT - I

- II. a) Write a C program using switch to find the EMI amount for a customer's purchase on loan.

No. of years	EMI
1	10% of loan
2	11% of loan
3	12% of loan
4	14% of loan
5	15% of loan

- b) Write a note on the different in built string functions. (2x5)

- III. a) What is memory and its role? Discuss the types of primary and secondary storage.
b) What are the various storage classes in C? Differentiate it on the basis of different storage parameters. (2x5)

- IV. a) Write a program to compute mean and median using array.
b) What are the different conditional statements and how they are represented? (2x5)

P.T.O.

(2)

UNIT - II

- V. What do you mean by sequential and random access file operations? Discuss the different types of operations in each category with one example of each. (10)
- VI. a) Given below are the array elements. Write in steps the procedure of insertion sort, and sort the elements of array in each step:
21,36,13,79,57,67
- b) State the similarities and differences among structure and union (2x5)
- VII. Write note on the following:-
- a) void pointers
 - b) EOF()
 - c) applications of pointers
 - d) compiler vs. interpreter
 - e) cache memory (5x2)

x-x-x