TMC–101

M. C. A. (FIRST SEMESTER)
MID SEMESTER
EXAMINATION, Jan., 2023

PROGRAMMING METHODOLOGY USING 'C'

Time : 1½ Hours

Maximum Marks : 50

Note : (i) Answer all the questions by choosing any *one* of the sub-questions.

(ii) Each sub-question carries 10 marks.

1. (a) Define Algorithm. Discuss the characteristics of good Algorithm. Write an Algorithm to find the factorial of a number. (CO1)

OR

(b) "Switch case is the replacement of if-else". Justify the statement. (CO2)

P. T. O.

2. (a) Differentiate between break and continue statement. Discuss with the help of suitable example. (CO2)

OR

(b) Write in brief about various control statements available in C with the help of an example. (CO2)

3. (a) Define pointer in C. Discuss the concept of pointer to pointer by taking suitable example. (CO3)

OR

(b) Determine the value of x if a = 20, b = 20, c = 5. (CO3)

(i) X = a > b && b < c

(ii) X = a > b II b < c

(iii) X = a == || a < c

(iv) X = a && b

(v) X = ! 8 || b

4. (a) Differentiate between structure and array. Create a structure student and print the Name, ID and percentage of 5 students using structure. (CO2)

OR

(b) Differentiate between call by value and call by reference. Explain any *three* string handling library functions. (CO2)

5. (a) Write short notes on the following : (CO1)

(i) Dynamic memory allocation

(ii) Preprocessor Directives.

OR

(b) Demonstrate the need of fread() and fwrite() functions by taking suitable example. (CO2)

60