TBC/TBI–101

B. C. A./B. SC. (IT)

(FIRST SEMESTER)

MID SEMESTER EXAMINATION, 2021-22

COMPUTER FUNDAMENTALS AND

PROGRAMMING CONCEPTS USING 'C'

LANGUAGE

Time : 1 : 30 Hours

Maximum Marks : 50

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

(ii) Each question carries 10 marks.

1. (a) What do you understand by a programming language ? Explain the characteristics of C programming language. (CO1)

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OR

(b) Explain life cycle of a C program by using a neat diagram only which consists all compilation steps and extension of files generated during these steps.   (CO1)

2. (a) Draw a flowchart and write a C program to find inputted number is positive, negative or zero.   (CO1)

OR

(b) Draw a flowchart and write a C program to find largest of three inputted numbers.

(CO1)

3. (a) Draw and explain all the symbols used in Sequential Flowcharts, Conditional Flowcharts and Iterative Flowcharts.(CO1)

OR

(b) Write notes on the following with examples :   (CO1)

(i) Variable and Identifiers in C

(ii) Relational and Logical operators

4. (a) Write notes on the following with examples :   (CO2)

(i) Bitwise and Ternary operator

(ii) Logical and Relational operator

OR

(b) Write a C program to accept the marks of a student in three subjects (Maximum Marks 100). If student scores more than 40%, then display "Pass" else display "Fails".   (CO2)

5. (a) Write notes on the following with examples :   (CO2)

(i) Break and Continue

(ii) Syntax and Working of Conditional Operator

OR

(b) Draw a flowchart and write a C program to print the following pattern using nested loop :   (CO2)

```
       *
      * * *
     * * * * *
    * * * * * * *
   * * * * * * * *
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