

Roll No. _____

3011

**B. Tech. 1st Semester (CSE)
Examination – February, 2022**

PROGRAMMING FOR PROBLEM SOLVING

Paper : ESC-CSE-101-G

Time : Three Hours]

[Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt five questions in all selecting two question from each Unit. Question No. 1 is compulsory.

1. (a) Discuss the basic symbols used in flowcharts. 2.5
- (b) What are Pseudocode ? Give an example. 2.5
- (c) What is the difference between Printf() and Scanf() ? 2.5
- (d) Explain data types in C. 2.5

- (e) What do you understand by strings? 2.5
(f) Discuss about functions with example 2.5

UNIT - I

2. (a) Define an algorithm. Write an algorithm to calculate largest numbers in any three numbers. 8
(b) What is a flowchart? Draw a flow chart to check if a number is even or odd. 7
3. Write an algorithm and draw a flowchart to calculate the simple interest. 15
4. Write short note on : $3 \times 5 = 15$
(a) Header files.
(b) Syntax & logical errors in compilation of C lang.
(c) Keywords and variables.

UNIT - II

5. What are conditional statements? Write a program in 'C' language to find factorial of a number. 15
6. Differentiate between while and do-while loop using example. 15

7. Explain call by value and call by reference method in detail. 15
8. (a) Define character, arrays and strings. 5
(b) Write a program to add two matrix. 10
9. (a) Define pointers in C language. Write a program in C to swap two numbers using pointers. 8
(b) Explain file handling concept of C language. 7