

Roll No.

3011

**B. Tech. 2nd Semester (CSE)
Examination – July, 2021**

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 *one* question from each Unit. Question No. 1 is *compulsory*. All questions carry equal marks.

- 1.** Answer the following questions : $6 \times 2.5 = 15$
- (a) Explain data types in 'C'.
 - (b) What are storage classes ?
 - (c) Explain Pseudo code with an example.
 - (d) Explain arithmetic expression & their Precedence.

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- (e) What are strings ?
- (f) Differentiate between do-while & while loop in C language.

UNIT - I

- 2. Define flowchart. Draw a flowchart to check whether a number is even or odd. 15
- 3. What is an algorithm ? Write an algorithm to Add three numbers. 15

UNIT - II

- 4. Explain the following : $3 \times 5 = 15$
 - (a) Syntax & logical error
 - (b) Variables & keywords
 - (c) Input & output functions
- 5. What are conditional statements explain with any example ? 15

UNIT - III

- 6. Write a program to calculate factorial of a number using for loop. 15
- 7. What are arrays ? Write a program to add *two* matrix. 15

UNIT - IV

- 8. Explain call by value and call by reference method in detail. 15
- 9. Write short notes on :
 - (a) Structures 7
 - (b) Pointers 8