

Roll No.

OLE-3011

B. Tech. 1st Semester (CSE)

Examination – April, 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. Write short note on the following : **2.5 × 6 = 15**

- (a) Pseudocode
- (b) Syntax error and Logical error
- (c) Iterative statements
- (d) 2-Dimensional Array
- (e) Ackerman Function
- (f) Union

UNIT – I

2. (a) What is an algorithm? Differentiate between algorithm and flowchart. Explain with relevant example. 8
- (b) What are storage classes ? Explain the storage classes available in C. 7
3. What is data type? Which Data types are available in C ? Explain in detail. 15

UNIT – II

4. (a) What are preprocessors ? Explain. 7
- (b) What is branching ? Explain the branching statement available in C. 8
5. What are loops? Describe the loops available in C Programming language using suitable example. 15

UNIT – III

6. (a) What is recursion ? Also, write a program for Fibonacci series using recursion. 7
- (b) Define array. Write a program for Matrix Multiplication using array data type. 8
7. What is function ? Differentiate between call by value and call by reference by using relevant example. 15

UNIT – IV

8. What is structure ? Differentiate between structure and union. Explain with relevant example. 15
9. (a) What is dynamic memory allocation ? Differentiate between malloc() and calloc() function. 8
- (b) What is file handling ? Explain file operation in C language using syntax. 7
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