

18A13

B. Tech. EXAMINATION, June 2023

(Second Semester)

(C-Scheme) (Main & Re-appear)

(Common for All Branches)

CSE101C

PROGRAMMING FOR PROBLEM SOLVING

Time : 3 Hours]

[Maximum Marks : 75

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

Note : Q. No. 1 is compulsory. Attempt other *four* questions taking *one* question from each Unit. All questions carry equal marks.

1. Write short notes on the following : **3×5=15**

- (a) Define Compilers.
- (b) What is difference between syntax and logical errors ?
- (c) What is the idea of Call by Reference ?
- (d) What are array of Structures ?
- (e) Explain insertion sort.

Unit I

2. What are different types of memories available on a digital computer system ? Explain. **15**

3. Define Variable. Explain various storage classes of variable. Also explain various format specifiers associated with different variables in C. **15**

Unit II

4. How are Arrays different from simple variables ? How are arrays passed to a function ? Explain with a suitable program in C. **15**

5. Write a programme in C implementing call by value and call by reference. **15**

Unit III

6. What are Structures ? Write a program in C implementing array of structures. **15**

7. Explain pointer arithmetic with suitable example. Also explain their usage implementing a link list. **15**

Unit IV

8. Write a program in C to find roots of a quadratic equation. **15**

9. Write programs implementing the following :
(a) Bubble sort
(b) Binary search. **15**