**SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN (AUTONOMOUS)**
**(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)**
**Chromepet, Chennai — 600 044.**
**B.Sc. END SEMESTER EXAMINATIONS APRIL-2022**
**SEMESTER - I**
**21UCSCT1001 - Problem solving through Programming in C**

**Total Duration : 3  Hrs.**                                    **Total Marks  : 60**

## Section A

### Answer any **SIX** questions  $(6 \times 5 = 30$ Marks$)$

1. State and explain software design techniques.

2. Apply pseudo code convention to compute addition of three numbers.

3. Solve whether a given number is a prime number or not using C Language.

4. Develop a C program to convert a line of lower case to upper case.

5. Explain various storage classes in C.

6. Describe various data types in C.

7. Classify various functions in C with an example.

8. Illustrate self – referential structure.

## Section B

### Answer any **THREE** questions  $(3 \times 10 = 30$ Marks$)$

9. Explain top-down design approach with your own example.

10. Develop a C -code to sort the given set of integers in ascending order.

11. Differentiate between while and for loops in C.

12. Evaluate a factorial value of an integer number "n" using recursion method in C.

13. Distinguish between structures and unions.

*****