

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.CGS - END SEMESTER EXAMINATIONS - NOV'2024

SEMESTER - III

23UCGCT3003 - Data Structures

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

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

1. Illustrate Primitive and Composite data types with an example.
2. Explain Singly Linked list and its operations.
3. Classify the various types of graphs.
4. Explain Binary search in detail.
5. Explain Infix to Postfix conversion algorithm with an example.
6. Illustrate the application of doubly linked list with an example.
7. Explain binary tree traversal.
8. Examine Divide and Conquer algorithm in detail.

Section C

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

9. With an example explain array and its operations.
10. Apply the concept of stack and explain its operations, applications.
11. Examine the Polynomial addition and representation with an example.
12. Solve the Dijkstra's Algorithm with an example.
13. Assess the Merge sort algorithm in detail.
