

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.

BCA END SEMESTER EXAMINATIONS NOVEMBER -2023

SEMESTER - III

20UCACT3004 - Data Structures and Algorithms

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section B

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

1. Discuss the principles of asymptotic notations.
2. Demonstrate any 2 operations of Arrays.
3. Classify the applications of stack
4. Differentiate infix and post fix notation.
5. Outline the applications of linked list.
6. Compute the efficiency of polynomial addition.
7. Discuss the characteristics of binary tree.
8. Explain Maximum and Minimum with example.

Section C

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

9. Illustrate primitive and composite data type with example.
10. Compute the performance of circular queue with example.
11. Determine the operations of doubly linked list.
12. Compute the performance of tree traversal with example.
13. Evaluate merge sort with example.
