

ST. JOSEPH'S EVENING COLLEGE (AUTONOMOUS)

II SEMESTER BCA EXAMINATIONS - APRIL 2019

DATA STRUCTURES USING C

Duration: 2.5 Hours

Max. Marks: 70

SECTION - A

I) Answer any SIX of the following questions. (6x3=18)

1. What is dynamic allocation? Give example for dynamic allocation.
2. Write a note on polish notation.
3. Give syntax of fscanf() and fprintf() function.
4. Explain applications of linked list.
5. Explain stack representation in memory.
6. What is searching? List the different types of searching.
7. What is sorting? Explain any 2 sorting techniques.
8. Explain AVL rotation.

SECTION - B

II) Answer any FOUR of the following questions. (4x8=32)

9. Write an algorithm to sort elements using bubble sort.
10. Explain tree traversal with examples.
11. Write an algorithm to add a node at the end of linked list.
12. What is queues, Explain the types of queues.
13. Write an algorithm to sort elements using insertion sort.
14. Explain the working of Merge sort with the following example:
5, 0, 10, 99, 60

SECTION - C

III) Answer any TWO of the following questions. (2x10=20)

15. Define data structures. Explain the classification of data structures.
16. Define linked list. Explain various types of linked list.
17. Write a C program to implement stack operations.