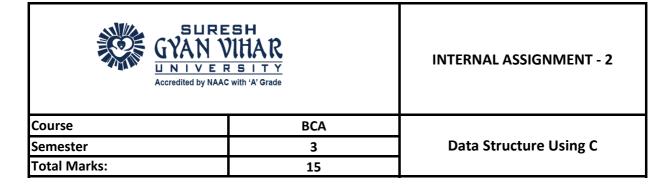


Q.1. Write answers for any two questions from below. (5 marks each – Word limit – 500)

- **A.** Write a 'C' program to add a node in a doubly linked list at the beginning and at the end.
- **B.** Write algorithm for deleting an element in a binary tree
- **C.** What are the values of front and rear?

Q.2. Write short notes on all of the following topics (1 mark each - Word limit - 100)

- A. Binary search
- B. Merging
- **C.** Spanning tree
- D. Structure
- E. Multi graph



Q.1. Write answers for any two questions from below. (5 marks each – Word limit – 500)

- **A.** Write a C program of Binary Search algorithm with recursion.
- **B.** Design a stack with operations on middle element
- **C.** What is Merge sort? Explain time complexity of Mergre sort.

Q.2. Write short notes on all of the following topics (1 mark each - Word limit - 100)

- A. Time complexity Vs space complexity
- B. Circular linked list
- **C.** Data structure
- **D.** Cycle in a Graph
- E. Height of a tree