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|  SURESH GYAN VIHAR UNIVERSITY <small>Accredited by NAAC with 'A' Grade</small> | | INTERNAL ASSIGNMENT - 1 |
| Course | MCA | Data Structure Using C++ |
| Semester | 3 | |
| Total Marks: | 15 | |

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

- A. What is Stack and where it can be used?
- B. How to delete a node at a given position of a single linked list?
- C. Write an algorithm to show the postfix expression with the input given as: a b + c d +*f/

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

- A. Discuss how to implement queue using stack. Explain stacks and queues in detail.
- B. queue operation
- C. Can Binary Search be used for linked lists?
- D. What is a linked-list?
- E. What is a graph?

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|  SURESH GYAN VIHAR UNIVERSITY <small>Accredited by NAAC with 'A' Grade</small> | | INTERNAL ASSIGNMENT - 2 |
| Course | MCA | Data Structure Using C++ |
| Semester | 3 | |
| Total Marks: | 15 | |

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

- A. Is it possible to insert different type of elements in a stack? How? Explain.
- B. Can doubly linked be implemented using a single pointer variable in every node?
- C. How to implement a stack using queue? How to implement a queue using stack?

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

- A. Why do we use stacks?
- B. Queue
- C. What are the criteria of algorithm analysis?
- D. Linked List
- E. Singly Linked List