

SECTION-B

- Q.2 a) What is an algorithm? What are its characteristics?
- b) How to find complexity of an algorithm? What is the relation between time and space complexity of an algorithm?
- Q.3 What is a single linked list? What are the various operations performed on a single linked list? Write an algorithm to insert a node after a given node in a linked list.
- Q.4 Name and explain various searching techniques. Give suitable examples. Implement any one algorithm to search an element from a list of N numbers.
- Q.5 What are queues? How are queues implemented in memory? What are the various queue operations? Write algorithms for each.
- Q.6 Explain bubble sort technique with algorithm. Use bubble sort algorithm to sort the following list of numbers :
- 70, 30, 40,10, 80, 20, 60, 50
- Q.7 What are binary trees? Enlist various binary tree traversal techniques. Apply these techniques to traverse the following tree :

