

Course Code: 3BSCCS4

Course: Data Structure

Credit: 4

Last Submission Date: April 30 (for January Session)

October 31, (for July session)

Max. Marks:-30

Min. Marks:-10

Note:-attempt all questions.

- Q1. What is data structure? How is data processed on data structure?
- Q2. Enumerate various sorting algorithms and mention their time complexities
- Q3. What is stack? Write the ADT implementation of stacks using templates in C
- Q4. Explain the Concept of Dequeue, Priority Queues and Circular Queue..
- Q5. Write algorithms to insert into and delete elements from a doubly linked list
- Q6. Compare
- a) Linked list and arrays
 - b) Linked implementation of stacks queues
- Q7. Give the essential difference between a binary tree and a tree?
- Q8. Define the following terms
- a) Height of a tree
 - b) Order of a tree
 - c) Complete binary tree
 - d) Almost complete binary tree
- Q9. Discuss the graph transversal schemes with suitable algorithms for each?
- Q10. Describe the Path Matrix in details.