

Anjuman Islam Janjira Degree College of Science Murud-Janjira, Raigad-402401 Affiliated to University of Mumbai	
Class: - S.Y.B.Sc C.S	Subject: - Data Structures
Semester:- III	Course code: -USCS303
Exam Event:- Winter 2023 (SH)	Marks: -75
Date: - 19/10/2023	Duration: - 02:30 Hours

- N.B. –**
- 1 – All questions are compulsory.**
 - 2 – All questions have internal choice.**
 - 3 – Figures to the right indicate full marks.**

Q. 1) Answer the following Question. (Any 4 Out of 6) 20

1. Explain Date Abstract Data Type.
2. Describe Circular Queue and its Operation
3. Discuss the Applications of Stack.
4. What is Abstract Data Type and Explain its four operation.
5. Explain Queue and Queue Abstract Data Type Operations.
6. Describe Linked Representation.

Q. 2) Answer the following Question. (Any 4 Out of 6) 20

1. What is Doubly Linked List Operation?
2. Explain the Given Term: Root, node, path, parent, and children.
3. State and Explain Binary Tree Properties.
4. Define full binary tree, perfect binary tree, expression tree.
5. Describe Binary Tree Traversals.
6. Explain Application of Tree.

Q. 3) Answer the following Question. (Any 4 Out of 6) 20

1. Discuss Graph with diagram.
2. What are types of graph?
3. Explain Graph Application.
4. Define Hashing state its advantage and disadvantages.
5. Explain advantages and disadvantages of graph.
6. State and Explain Hash Functions.

Q. 4) Answer the following Question. (Any 5 Out of 6) 15

1. What is Stack?
2. Discuss Linked Structure.
3. Explain Binary Tree Traversals.
4. What are the Applications of Queue?
5. Explain Abstract Data Type (ADT) and its Advantages.
6. Give Advantages and disadvantages of linked list.