

Delhi Institute of Technology and Management, Sonipat

Assignment No. – I

Subject: Data Structure

Time: Submit within 7 days

Subject Code: ETCS-209

Max. Marks: 30

Date: 1 Nov. 2021

Note: Attempt any five questions. All questions carry equal marks.

1. (a) What is abstract data type? Give example.
(b) Define Array. Give two examples.
(c) What is sparse array?
2. (a) What criteria algorithm must satisfy?
(b) What is stack? What are the operations on stack how much time these operations take?
3. (a) What is Queues and Queue 407 ?
(b) What is infix and postfix express?
4. (a) What is list? Give examples.
(b) Write an Algo. for list.
(c) Difference b/w single, circular and double list.
5. (a) What is tree?
(b) What are the properties of tree?
6. (a) What are binary tree and its properties?
(b) Construct complete Binary tree.
7. (a) What is traversivity of Binary tree?
(b) Write algorithm for pre order traversal.
8. (a) What is AVL tree? Write properties of AVL tree.
(b) How the node is inserted in the tree? Write steps.

Prepared By:

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