28 Lecture - CS301

Important Mcqs

1.	In threaded binary tree, a node that has no left child and whose left pointer points to the
	a) in-order predecessor b) in-order successor c) null d) none of the mentioned Answer: a
2.	 What is a threaded binary tree? a) A binary tree in which each node can have any number of children b) A binary tree in which all the left pointers point to inorder predecessors and right pointers point to inorder successors. c) A binary tree in which each node can have at most 2 children d) A binary tree in which all the leaf nodes have a level of 0. Answer: b
3.	What is the time complexity for finding the inorder successor in a threaded binary tree? a) $O(1)$ b) $O(n)$ c) $O(\log n)$ d) $O(n^2)$ Answer: a
4.	In which traversal, the nodes are visited in increasing order of their values? a) Inorder Traversal b) Preorder Traversal c) Postorder Traversal d) Level order Traversal Answer: a
5.	In threaded binary trees, the right pointer of a node points to its a) Predecessor b) Successor c) Ancestor d) Descendant Answer: b
6.	Which of the following is not true for threaded binary trees? a) In-order traversal can be performed in O(n) time complexity

c) They are more efficient than normal binary trees for finding in-order predecessors and

b) They save storage space

d) They allow for easy deletion of a node

successors.

Answer: d

7. Which of the following is a disadvantage of threaded binary trees?

- a) They take up more space than normal binary trees
- b) They are less efficient than normal binary trees for finding in-order predecessors and successors.
- c) They make deletion of a node difficult.
- d) They require extra memory space to store the thread pointers.

Answer: d

8. What is the main advantage of using threaded binary trees?

- a) They are easier to implement than normal binary trees
- b) They allow for efficient finding of in-order predecessors and successors
- c) They have a shorter height than normal binary trees
- d) They can store more data than normal binary trees

Answer: b

9. Which of the following is not a type of threaded binary tree?

- a) Single threaded binary tree
- b) Double threaded binary tree
- c) Circular threaded binary tree
- d) Quadruple threaded binary tree

Answer: d

10. Which of the following is not true for threaded binary trees?

- a) They are used for storing large amounts of data
- b) They allow for efficient traversal of the tree
- c) They can be used for faster searching of data
- d) They have a shorter height than normal binary trees.

Answer: a