

# UNIT-5 PYQ Analysis

(BST, AVL, B-Tree, DFS, BFS, NP)

(Trees, Graph Traversal & NP)

Topic	2022	2023	2024	2025	Total	Probability
AVL Tree	✗	✓	✓	✓	3	🔥 Very High
BST	✗	✗	✗	✓	1	✓ Important
B-Tree	✓	✗	✗	✓	2	★ High
2-3 Tree	✗	✓	✓	✗	2	★ High
DFS	★	✓	★	✓	3	★ High
BFS	★	✓	★	✓	3	★ High
Tree Traversals	✓	✗	✗	✓	2	★ High
NP Completeness	✓	✓	✗	✗	2	★ High

## **AVL Tree**

Asked:

2023

2024

2025

Questions:

- Height Balanced Tree.
  - Balance Factor.
  - AVL Rotations.
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## **B-Tree**

Asked:

2022

2025

Questions:

- Construct B-Tree.
- Explain B-Tree.

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## **BST**

Asked:

2025

Questions:

- Delete element from BST.
- Construct BST.

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## **DFS & BFS**

Asked:

2022

2023

2025

Questions:

- Difference BFS vs DFS.
- DFS Traversal.
- BFS Traversal.

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## ★ Tree Traversals

Asked:

2022

2025

Questions:

- Preorder
- Inorder
- Postorder

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## ★ 2-3 Tree

Asked:

2023

2024

Questions:

- Explain 2-3 Tree.
- Advantages over BST.

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## ★ NP Completeness

Asked:

2022

2023

Questions:

- Explain NP Complete Problems.
- P vs NP vs NP Hard.