

Seat Number

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कांजी - 001

**COMPUTER SCIENCE PAPER - I : CS - 241**  
**Data Structure - II**  
**(24245)**

**P. Pages : 2**

**Time : Two Hours**

**Max. Marks : 40**

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All questions are compulsory.

1. Attempt any eight.

8

- a) Define tree.
- b) What is hash table.
- c) Define Searching.
- d) Define graph.
- e) Define non linear data structure.
- f) What DFS.
- g) What BFS.
- h) What is sorting.
- i) What are non - leaf nodes.
- j) What is binary tree.

2. Attempt any four.

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- a) Define B - tree.
- b) What is binary search - explain.

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- c) List applications of graph.
- d) What is list structure.
- e) Define AVL tree.
- f) What is tree traversing.
- 3. Attempt any two. 8
  - a) Explain with suitable example - DFS.
  - b) Explain concept of B-tree.
  - c) List & explain various representations of graph.
- 4. a) Attempt any two. 6
  - a) What is BST - explain.
  - b) Explain term - Threaded binary tree.
  - c) Differentiate between sequential & binary search.
- b) Compulsory question : 2

What is quick sort.
- 5. Attempt any one. 8
  - a) Explain bubble sort with suitable example.
  - b) How insert & delete is done on BST - explain with example.

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