Seat Number



## 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.

- 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.

## Attempt any eight.

8

- a) Define graph.
- b) List various non linear data structures.
- c) What is bubble sort.
- d) Define binary tree.
- e) What is hashing.
- f) Define BST.
- g) List all tree traversal technique.
- h) What is radix sort.
- i) Define threaded binary tree.
- j) Define binary search.

## Attempt any four.

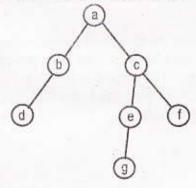
8

- a) What is AVL tree.
- b) What is tree sort.
- c) List applications of graph.

- d) Give linked representation of tree.
- e) What is in order traversal.
- f) List various collision resolution techniques.
- Attempt any two.

8

- a) Write note on BFS.
- b) Write in order & pre order traversal list for following graph.



- c) List & explain various operation on binary tree.
- 4. a) Attempt any two.

6

- a) Briefly explain hashing functions.
- b) Differentiate between DFS & BFS.
- c) Give matrix representation of graph.
- b) Compulsory question : What is binary search explain.

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5. Attempt any one.

8

- a) What is AVL tree. Explain how insert & delete operations are performed on AVL tree.
- b) Give algorithm of merge sort. Explain merge sort with example.

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