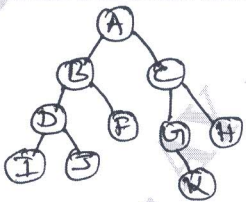


- 7 a. Define the following with example:
- Binary tree
 - Complete binary tree
 - Binary search tree
 - Threaded binary tree.
- (10 Marks)
- b. Write C routine for In order Pre order and Post order traversal with example for each.
- (10 Marks)
- 8 a. Explain how to
- Insert a node into binary search tree
 - Searching a binary search tree.
- (10 Marks)
- b. For the tree given below write the In order Pre order and Post order traversal.
- (06 Marks)
- 
- ```

graph TD
 A((A)) --- B((B))
 A --- C((C))
 B --- D((D))
 B --- F((F))
 D --- I((I))
 D --- S((S))
 C --- G((G))
 C --- H((H))
 G --- K((K))

```
- c. Construct a tree for post order traversal  
4, 12, 10, 18, 24, 22, 15, 31, 44, 35, 66, 90, 70, 50, 25
- (04 Marks)
- 9 a. Define Graph. Explain the matrix and adjacency list representation of a graph with example.
- (05 Marks)
- b. Explain the following traversal methods:
- Breadth first search
  - Depth first search.
- (10 Marks)
- c. Explain Radix sort.
- (05 Marks)
- 10 Write a note on:
- File Attributes
  - File Organization and Indexing
  - Hashing
  - Elementary graph operation.
- (20 Marks)

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