

DATA STRUCTURE QUESTIONS

Ques 1. Write an algorithm to implement the HEAP sort technique and also compute the complexity of algorithm.

Ques 2. Define a queue. Also write code in C for ENQUEUE and DEQUEUE operation on QUEUE.

Ques 3. What do you understand by dynamic memory management? Create a circular linked list using dynamic memory and show its advantage over linear linked list.

Ques 4. What is circular linked list? Describe its procedure for inserting and deleting nodes from a circular linked list with an example.

Ques 5.a. Give the algorithm for post order tree traversing. Justify with an example.

Ques 5.b. What are threaded binary tree? Explain with example.

Ques 6.a. Write an algorithm for depth first traversal of a graph. Explain with example.

Ques 6.b. Give the linked and matrix representations of a graph.

Ques 7 a. What are AVL tree? Discuss the operations that can be performed on AVL tree. Illustrate with example.

Ques 7.b. What are sets. What are list representations of sets. Illustrate their significance.

Ques 8. Explain the following in detail

- a) Skip List
- b) Indexed file Organization