

Polling Quiz MCQs:

Q. Queue works in _____ manner

- A. First In Last Out
- B. First In First Out
- C. Last In First Out
- D. Last In Last Out
- E. Both B & D

Answer: E

Q. Double Ended Queue can be implemented by using

- A. Doubly Circular Linked List
- B. Array
- C. Stack
- D. All of the above

Answer: A

Q. What is the queue full condition in a circular queue?

- A. $\text{rear} == \text{SIZE} - 1$
- B. $\text{rear} == \text{SIZE}$
- C. $\text{front} == \text{rear} \% 1$
- D. $\text{front} == (\text{rear} + 1) \% \text{SIZE}$
- E. $\text{front} = \text{rear} + 1$

Answer: D

Q. Priority queue can be implemented efficiently by using _____

- A. Doubly Circular Linked List
- B. Array
- C. Tree
- D. Binary Heap

Answer: D

Q. Which of the following data structure is used to implement breadth first search traversal in a tree?

- A. stack
- B. array
- C. queue
- D. linked list

Answer: C

Q. Which of the following is true about linked list implementation of queue?

- A. For enqueue operation if we used `add_last()` then for dequeue operation we have to use `delete_first()`.
- B. For enqueue operation if we used `add_first()` then for dequeue operation we have to use `delete_last()`.
- C. For enqueue operation if we used `add_last()` then for dequeue operation we have to use `delete_last()`.
- D. Both A & B
- E. None of the above

Answer: D

Q. What is the time complexity of enqueue and dequeue operations

- A. $O(n)$
- B. $O(\log n)$
- C. $O(1)$
- D. None of the above

Answer: C

Q. Which of the following data structure is used to implement breadth first search algorithm?

- A. stack
- B. queue
- C. linked list
- D. none of the above

Answer: B

Q. FCFS scheduling algorithm can be implemented by using ____

- A. array
- B. stack
- C. linear queue
- D. priority queue

Answer: C

Q. Which of the following statement is true about binary tree?

- A. each node can have exactly two no. of child nodes
- B. each node can have either 0 OR 1 OR 2 no. of child nodes
- C. each node can have either 0 OR 2 no. of child nodes
- D. all of the above
- E. none of the above

Answer: B

Q. What is the time complexity of addition, deletion & searching operations in a binary search tree?

- A. $O(1)$
- B. $O(n)$
- C. $O(\log n)$
- D. none of the above

Answer: C

Q. What is the maximum height of a binary search tree?

- A. n
- B. n^2
- C. $\log n$
- D. $n-1$

Answer: A

Q. Which of the traversal prints data elements in a binary search tree in a sorted manner?

- A. preorder
- B. inorder
- C. postorder
- D. all of the above
- E. none of the above

Answer: B

Q. The preorder traversal sequence of a binary search tree is 30, 20, 10, 15, 25, 23, 39, 35, 42. Which one of the following is the postorder traversal sequence of the same tree?

- A. 10, 20, 15, 23, 25, 35, 42, 39, 30
- B. 15, 10, 25, 23, 20, 42, 35, 39, 30
- C. 15, 20, 10, 23, 25, 42, 35, 39, 30
- D. 15, 10, 23, 25, 20, 35, 42, 39, 30

Answer: D