42 Lecture - CS304

Important Mcqs

1. **Which of the following is NOT a type of iterator in C++?**
   a) Forward iterator
   b) Backward iterator
   c) Input iterator
   d) Random access iterator
   Answer: b) Backward iterator

   Which of the following is a feature of a forward iterator?
   a) Can move in both directions
   b) Can be used to modify the elements in a container
   c) Can access the elements of a container multiple times
   d) Can only move forward in a container
   Answer: d) Can only move forward in a container

   Which of the following is an example of a container that supports random access iterators?
   a) Linked list
   b) Queue
   c) Array
   d) Set
   Answer: c) Array

   What is the purpose of an output iterator?
   a) To iterate through a container in reverse order
   b) To modify the elements in a container
   c) To read the elements in a container
   d) To write data to a container
   Answer: d) To write data to a container

   Which of the following is an example of a bidirectional iterator?
   a) Stack
   b) Deque
   c) Forward list
   d) Map
   Answer: b) Deque

   What is the complexity of the operator++() function for a random access iterator?
   a) O(n)
   b) O(log n)
   c) O(1)
   d) O(n^2)
   Answer: c) O(1)

   Which of the following algorithms require a random access iterator?
   a) std::sort()

b) std::transform()
c) std::reverse()
d) std::unique()
Answer: a) std::sort()

Which of the following is a characteristic of an input iterator?
a) Can be used to modify the elements in a container
b) Can only access the elements of a container once
c) Can move in both directions
d) Can skip elements in a container
Answer: b) Can only access the elements of a container once

Which of the following is an example of a container that supports bidirectional iterators?
a) Hash table
b) Binary search tree
c) Vector
d) Queue
Answer: b) Binary search tree

Which of the following is an example of a container that supports forward iterators?
a) Stack
b) Map
c) Linked list
d) Set
Answer: c) Linked list