1. What is the correct way to include the STL vector library?
   1. **#include <vector>**
   2. #include <list>
   3. #include <deque>
   4. #include <algorithm>
2. Which function is used to get the total capacity of a vector?
   1. v.size()
   2. **v.capacity()**
   3. v.max\_size()
   4. v.no\_of\_elements()
3. Which container provides dynamic resizing and allows random access of elements?
   1. list
   2. deque
   3. **vector**
   4. set
4. How are elements stored in a vector container in memory?
   1. Linked List
   2. Stack
   3. **Array**
   4. Queue
5. Which STL container is implemented as a doubly-ended queue?
   1. list
   2. vector
   3. **deque**
   4. set
6. Which of the following is true about std::list?
   1. It provides random access to elements.
   2. **It allows fast insertion and deletion from both ends.**
   3. It uses an array-based data structure.
   4. It does not support iterators.
7. Which algorithm is used to reverse the elements of a container in C++ STL?
   1. **reverse()**
   2. rotate()
   3. sort()
   4. fill()
8. Which algorithm is used to sort elements in ascending order in C++ STL?
   1. **sort()**
   2. stable\_sort()
   3. merge()
   4. reverse()
9. Which container does not support constant time insertion and deletion from the front?
   1. **vector**
   2. list
   3. deque
   4. set
10. Which algorithm is used to find the maximum element in a container in C++ STL?
    1. **max\_element()**
    2. min\_element()
    3. find()
    4. sort()
11. How do you remove all occurrences of a specific element from a vector in C++ STL?
    1. erase()
    2. **remove()**
    3. delete()
    4. clear()
12. Which container is best suited for implementing a queue in C++ STL?
    1. list
    2. **deque**
    3. vector
    4. set
13. What is the time complexity of erasing an element from the middle of a deque?
    1. O(1)
    2. O(log n)
    3. **O(n)**
    4. O(n^2)
14. Which algorithm is used to perform the union of two sets in C++ STL?
    1. union\_set()
    2. **set\_union()**
    3. merge()
    4. set\_merge()
15. What is the time complexity of finding an element in a set?
    1. O(1)
    2. **O(log n)**
    3. O(n)
    4. O(n^2)
16. Which container is implemented as a dynamic array in C++ STL?
    1. list
    2. **vector**
    3. set
    4. map
17. How do you remove all elements from a list in C++ STL?
    1. erase()
    2. remove()
    3. delete()
    4. **clear()**
18. What is the time complexity of inserting an element at the beginning of a vector?
    1. O(1)
    2. O(log n)
    3. **O(n)**
    4. O(n^2)
19. Which algorithm is used to find the sum of elements in a container in C++ STL?
    1. sum()
    2. **accumulate()**
    3. find()
    4. add()
20. Which container provides constant time insertion and deletion from both ends?
    1. list
    2. **deque**
    3. vector
    4. set
21. What is the time complexity of sorting a vector in C++ STL using the sort() function?
    1. O(1)
    2. O(log n)
    3. O(n)
    4. **O(n log n)**
22. How do you find the first occurrence of a specific element in a list in C++ STL?
    1. **find()**
    2. search()
    3. locate()
    4. locate\_first()
23. What is the time complexity of erasing an element from the middle of a list?
    1. O(1)
    2. O(log n)
    3. **O(n)**
    4. O(n^2)
24. Which algorithm is used to count the occurrences of a specific element in a container in C++ STL?
    1. find()
    2. **count()**
    3. search()
    4. locate()
25. How do you remove all occurrences of a specific element from a list in C++ STL?
    1. erase()
    2. **remove()**
    3. delete()
    4. clear()
26. Which algorithm is used to perform the intersection of two sets in C++ STL?
    1. intersect\_set()
    2. **set\_intersection()**
    3. merge()
    4. set\_merge()
27. What is the time complexity of finding the maximum element in a list?
    1. O(1)
    2. O(log n)
    3. **O(n)**
    4. O(n^2)
28. How do you remove all elements from a vector in C++ STL?
    1. erase()
    2. remove()
    3. delete()
    4. **clear()**
29. What is the time complexity of inserting an element in the middle of a vector?
    1. O(1)
    2. O(log n)
    3. O(n)
    4. **O(n^2)**
30. How do you find the last occurrence of a specific element in a vector in C++ STL?
    1. find()
    2. search()
    3. locate()
    4. **locate\_last()**
31. What is the time complexity of sorting a list in C++ STL using the sort() function?
    1. O(1)
    2. O(log n)
    3. O(n)
    4. **O(n log n)**
32. Which of the following(s) can be used to access the first element of a vector v?
    1. v.begin()
    2. v.cbegin()
    3. v[0]
    4. **all of the mentioned**
33. Which is the following is syntactically correct for vector<int> v?
    1. vector <int> :: const\_iterator itr = v.rbegin();
    2. vector <int> :: reverse\_iterator itr = v.begin();
    3. **vector <int> :: iterator itr = v.begin();**
    4. vector <int> :: iterator itr = v.cbegin();
34. What will be the output of the following C++ code?

#include <iostream>

#include <vector>

using namespace std;

int main()

{

vector<int> v;

for (int i = 1; i <= 5; i++)

v.push\_back(i);

vector<int> :: const\_iterator i;

for (i = v.begin(); i != v.end(); ++i)

cout << \*i << " ";

cout<<endl;

return 0;

}

1. **1 2 3 4 5**
2. 1 3 5
3. 1 4 5
4. Error
5. How the size of a vector increases once it is full?
   1. Vector increases its capacity one by one
   2. **Vector doubles its capacity after it is full**
   3. Vector increases its capacity by half of its previous size
   4. Vector increases its capacity by a constant factor