

Flash Quiz 8 Questions

CSE 232 (Introduction to Programming II)

1. What is a `const_iterator` in C++?
 - (a) An iterator that allows modification of the container elements, but not itself
 - (b) An iterator that allows modification of itself, but not the container elements
 - (c) An iterator that allows modification of neither itself, nor the container elements
 - (d) An iterator that allows modification of both itself, and the container elements
2. Which of the following is true about iterators?
 - (a) A const container can only have const iterators
 - (b) A non-const container can only have non-const iterators
 - (c) A container being const or non-const has no effect on its iterators
 - (d) (a) and (b)
3. Which of the following is not supported in forward iterators?
 - (a) Dereferencing
 - (b) Equality checking
 - (c) Incrementing
 - (d) Decrementing
 - (e) They are all supported
4. Which of the following is not supported in bidirectional iterators?
 - (a) Dereferencing
 - (b) Equality checking
 - (c) Incrementing
 - (d) Decrementing
 - (e) They are all supported
5. Which of the following is true about `const_iterator`?
 - (a) The element pointed by `const_iterator` can be modified
 - (b) `const_iterator` can be used with `std::map` and `std::set`
 - (c) `const_iterator` is the same as `const iterator`
 - (d) All of the choices are true
 - (e) None of the choices are true
6. Which of the following is true about iterators?
 - (a) Forward iterators support all the functionalities as Bidirectional iterators
 - (b) Bidirectional iterators support all the functionalities as random access iterators
 - (c) Bidirectional iterators support all the functionalities as forward iterators
 - (d) Random access iterators support all the functionalities as bidirectional iterators
 - (e) (a) and (b)
 - (f) (c) and (d)
7. What is recursion in computer science?
 - (a) A process of defining a loop within a function
 - (b) A process of running multiple functions in sequence
 - (c) A process of running multiple functions in parallel
 - (d) A process of defining a function in terms of itself
 - (e) A process of iterating over a sequence of functions
8. Which of the following may cause an infinite recursion?
 - (a) Incorrect for loop
 - (b) Incorrect while loop
 - (c) Incorrect base case
 - (d) Incorrect update for counter variable
 - (e) All of the choices

9. Given the following function:

```
int func(int n) {  
    if (n == 1) {  
        return 1;  
    } else {  
        return n + func(n - 1);  
    }  
}
```

What is the output of `func(3)`?

- (a) 1
- (b) 3
- (c) 4
- (d) 5
- (e) 6

10. Which of the following should a recursive function have?

- (a) A loop and a counter
- (b) A base case and a recursive step
- (c) Multiple function parameters
- (d) An iterator
- (e) All of the choices