

Flash Quiz 3 Questions

CSE 232 (Introduction to Programming II)

1. What is the correct way to declare a pointer to an integer x?

- (a) `int *y = &x;`
- (b) `int &y = x;`
- (c) `int *y = x;`
- (d) (a) and (b)
- (e) (b) and (c)

2. You are given the following function:

```
int* getPtr() {  
    int a = 10;  
    return &a;  
}
```

What is the output of the following?

```
int *p = getPtr();  
cout << *p;
```

- (a) 10
- (b) Compile Error
- (c) **Undefined Behavior**
- (d) Memory Address

3. Which of the following correctly declares a vector of integers?

- (a) `vector<int> v;`
- (b) `int vector v;`
- (c) `vector v<int>;`
- (d) `int v<vector>;`
- (e) `vector int v;`

4. What is one primary benefit of using the `at()` member function instead of the `[]` operator when accessing elements in a vector?

- (a) `at()` automatically resizes the vector if the index is out of range
- (b) **`at()` performs boundary checks and throws an exception if the index is out of range**
- (c) `at()` is faster than using the `[]` operator
- (d) There is no difference between using `at()` and the `[]` operator

5. What is the output of the following?

```
vector<int> v = {1, 2, 3, 4, 5};  
for (int i = 1; i <= v.size() - 1;  
i++) {  
    cout << v.at(i) << " ";  
}
```

- (a) 1 2 3 4 5
- (b) 1 2 3 4
- (c) **2 3 4 5**
- (d) 2 3 4

6. What is the missing line in the code below, so that it outputs 1 2 3 4 5?

```
vector<int> v1 = {1, 2, 3, 4, 5};  
//missing code  
for (int i : v2) {  
    cout << i << " ";  
}
```

- (a) `vector<int> v2 = v1;`
- (b) `vector<int> &v2 = v1;`
- (c) `vector<int> *v2 = &v1;`
- (d) **(a) and (b)**
- (e) (a) and (c)

7. What are the missing lines in the code below, so that it outputs 'y'?

```
char c = 'x';  
//missing code
```

- (a) `c = c + 1; cout << c;`
- (b) `c++; cout << c;`
- (c) `cout << c++;`
- (d) **(a) and (b)**
- (e) All of the above

8. You are given the following function:

```
void swap(int a, int &b) {  
    int temp = a;  
    a = b;  
    b = temp;  
}
```

What is the output of the following?

```
int x = 5, y = 7;  
swap(x, y);  
cout << x << " " << y;
```

- (a) 5 5
- (b) 5 7
- (c) 7 5
- (d) 7 7
- (e) Compile error

9. What is the output of the following?

```
string str = "Programming";  
cout << str.substr(3, 5);
```

- (a) gra
- (b) gram
- (c) gramm
- (d) ogr
- (e) ogram

10. Which of the following will result in setting char c at position i in string s?

- (a) s.insert(i) = c;
- (b) s.at(i) = c;
- (c) s[i] = c;
- (d) (b) and (c)
- (e) All of the above