

CS-1004 OOP (CS – A&B)

Time = 25 minutes

Quiz # 3 [25 marks]

Name: _____

Roll No: _____

1. Which of the following is FALSE about classes?
 - a. A class is defined using **class** Keyword.
 - b. Have a body delineated with braces {}.
 - c. Public and Private data can be accessed anywhere in code.
 - d. Default mode is private.
2. If a member function of a class is defined outside the class _____ operator is needed.
 - a. >
 - b. .
 - c. ::
 - d. <
3. Which of the following statement is **FALSE** about constructor of a class?
 - a. Initialize class members
 - b. Same name as the class
 - c. Can be called explicitly
 - d. No return type
4. What is output of following codes
 - a.

```
char str[] = "What an interesting world we live in!";
char * ptr = &str;
cout<<"1:"<<ptr[5]<<endl;
cout<<"2:"<<*ptr<<endl;
cout<<"3:"<<++ptr<<endl;
cout<<"4:"<<++(*str)<<endl;
cout<<"5:"<<str + 5<<endl;
```

```
.....
b. int* mystery(int* p){
    int i;
    for (i = 0; i < 2; i++) {
        int temp = *(p + i);
        *(p + i) = *(p + 4 - i);
        *(p + 4 - i) = temp;
    }
    return p;
}

int main(){
    int x[5] = { 1, 2, 3, 4, 5 };
    int i, *p;
    p = mystery (x);
    for (i = 0; i < 5; i++)
        cout << *(p + i) << " ";
    return 0;}
```

5. In this question, you are required to implement the DrawPattern function recursively. There will be no marks if the code contains any loop(s). The function should draw a V-shaped pattern for any given value of N.

For N=4, the pattern should be:

```
X.....X
.X.....X.
..X.....X..
...X...X...
....XX....
```

For N = 5, the pattern should be:

```
X.....X
.X.....X.
..X.....X..
...X...X...
....X...X...
.....XX....
```