

CS101 – Computer Programming
Quiz for Friday Batch – 31 October 2014

Q1. Consider the following program snippet of a C++ program.

Assume that the snippet compiles and executes after including the required compiler directives.

```
#include<iostream>
using namespace std;

struct xycoordinate{
    int x;
    int y;
};

struct xycoordinate createPoint(int x, int y){
    struct xycoordinate point;
    point.x=x;
    point.y=y;
    return point;
}

int main(){
    int a, b;
    ...
    xycoordinate XY;
    XY=createPoint(a,b);
}
```

In the 'main' program, 'a' and 'b' are taken as integer inputs from the user. Which of the following is the correct option, after the program is executed:

- A) The value of 'XY.a' and 'XY.b' will be equal to the values of 'x' and 'y' respectively.
- B) The value of 'XY.x' and 'XY.y' will be equal to the values of 'a' and 'b' respectively.
- C) The value of 'XY.x' and 'XY.y' cannot be known
- D) None of these

Refer to Q2 on the next page

Q2. Predict the output of the following program:

```
#include <iostream>
using namespace std;
int main()
{
    int i,j;
    int * matrix = new int[5];
    int * matrix1 = new int[5];
    for(i = 1; i < 6; i++)
    {
        matrix[i] = i;
        cout << matrix[i] <<" ";
    }
    cout <<endl;
    for(j = 0; j < 3; j++)
    {
        for(i = 0; i < 5; i++)
        {
            matrix1[j] = i+1;
            cout << matrix1[i] <<" ";
        }
        cout <<endl;
    }
    return 0;
}
```

Select an appropriate choice

- A) 1 2 3 4 5
 2 3 4 5 6
 3 4 5 6 0
 4 5 6 0 0
- B) 1 2 3 4 5
 1 0 0 0 0
 2 5 0 0 0
 3 5 6 0 0
- C) 1 2 3 4 5
 1 0 0 0 0
 5 2 0 0 0
 5 5 3 0 0
- D) 1 2 3 4 5
 1 0 0 0 0
 5 2 0 0 0
 3 4 5 0 0
- E) None of these