

CS101 – Computer Programming
Quiz for Tuesday Batch – 21 October 2014

Q1. Consider the following c++ program with unspecified expressions '**Expr1**' and '**Expr2**'

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

struct A{
    int x;
    int y;
    int z;
};

struct A* D(int x, int y, int z){
    //Expr1
    (*C).x=x*y;
    (*C).y=y*z;
    (*C).z=x*z;
    return C;
}

int main(){
    int a=2,b=3,c=4;
    //Expr2
    E=D(a,b,c);
}
```

Expressions '**Expr1**' and '**Expr2**' need to be identified, such that the value of '(*E).x', '(*E).y', and '(*E).z' are 6, 12, and 8 respectively.

- A) '**Expr1**' is required to be replaced by '**struct A* C;**' and '**Expr2**' by '**struct A* E;**'
- B) '**Expr1**' is required to be replaced by '**struct A* C=(struct A *) malloc(sizeof(struct A));**' and '**Expr2**' by '**struct A* E;**'
- C) '**Expr1**' is required to be replaced by '**struct A* C;**' and '**Expr2**' by '**struct A* E =(struct A *) malloc(sizeof(struct A));**'
- D) None of these

Refer to Question 2 on the next page

Q2. Consider the following program .

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

int main()
{
    int row=3, col=3;
    char **array;
    int i, j;
    array = new char*[row];
    for(i=0; i<row; ++i)
    {
        array[i] = new char[col];
    }
    cout<<endl;
    for(i=0; i<row; ++i)
    {
        for(j=0; j<col; ++j)
        {
            array[0][j]=j+'a';
        }
        array[i][0]=i+'a';
    }
    cout<<endl;
    cout<<"Contents of array["<<row<<"]["<<col<<"] are :\n";
    for(i=0; i<row; ++i)
    {
        for(j=0; j<col; ++j)
        {
            cout<<array[i][j]<<" ";
        }
        cout<<endl;
    }
    cout<<endl;
    return 0;
}
```

Select the appropriate choices

- A) a b c
 d e f
 g h i
- B) a b c
 a b c
 a b c
- C) a b c
 b
 c
- D) a b c
 b d
 c e
- E) None of these