National University of Computer and Emerging Sciences, Lahore Campus

Course:	Computer Programming Lab	Course Code:	CL103
Program:	BS(Computer Science)	Semester:	Fall 2018
Duration:	60 minutes	Total Marks:	35
Paper Date:	12-Oct-2018	Weight	
Section:	C	Page(s):	2
Exam:	Quiz 1	Roll No:	

Question # 1

Write Output of following code segments. (6+5)

(1.a)

```
{
      int num = 10;
      //adress of num = 0x100
       int *iptr = &num;
       //address of iptr = 0x500
       int ** ptr = &iptr;
       //address of ptr = 0x900
       int ***tptr = &ptr;
       //address of tptr = 0xC00

       cout << iptr << endl;

       cout << (*tptr) << endl;
       cout << (**tptr) << endl;
       cout << &(**tptr) << endl;
       cout << *(&(**tptr)) << endl;
       cout << *(* &(**tptr) ) << endl;
       return 0;
}
```

Output

(1.b)

```
//there is no error in code
{

int * iptr;

cout << sizeof(iptr) << " "
<<   sizeof((*iptr)) << endl;
double * dptr;

cout << sizeof(dptr) << " "
<<sizeof((*dptr)) << endl;

char * cptr;

cout << sizeof(cptr) << " "
 << sizeof((*cptr)) << endl;
}
```

Output

Question # 2

Write output against each of the following in proper format? (Write G for garbage value, if any). (10)

```
class QuizA {
   int n1, n2;
  public:
    QuizA() {  n1=3; }
   QuizA(int n){  n2=n; }
   void setN1(int n1){  n1=n1; }
    void setN2(int n2){  n2=n2; }
    void swap()
    {
        n1=n2;
        n2=n1;
    }
    int getN1(){  return n1;  }
    int getN2(){  return n2;  }
};
```

```
QuizA a1; QuizA a2(5);
cout<<a1.getN1()<<","<<a1.getN2()<<endl;
cout<<a2.getN1()<<","<<a2.getN2()<<endl;
a1.setN1(7); a2.swap();
cout<<a1.getN1()<<","<<a1.getN2()<<endl;
cout<<a2.getN1()<<","<<a2.getN2()<<endl;
a1.swap();
cout<<a1.getN1()<<","<<a1.getN2()<<endl;
```

Write Output Here:

1. _____
2. _____
3. _____
4. _____
5. _____

Question # 3: (14)

Write a function which receives two 2D arrays (array1 and array2) and their sizes (row1, col1 and row2, col2 respectively). Array1 is descending sorted (Every Row is sorted in descending order) and array2 is ascending sorted (Every Row is sorted in ascending order) already. Merge both arrays in descending order in new 2D array array3(Every Row should be sorted in Ascending order). YOU MUST ONLY MERGE, do not SORT.

Write your function here: