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Roll No:- R00C09A55 Course Code : CAP 445
Teacher: Dr. Yasir Iqbal Sir Course Title :- OOPs using C++

Ans:-1: Multilevel Inheritance :-

```
#include<iostream>
using namespace std;
class lpu
    {
      public:
        int a = 100;
      void display()
        {
          cout<<"Welcome to lpu \n"<<endl;
        }
    };

class cse: public lpu
    {
      public:
        int b = 200;
    };
class mca: public cse
    {
      public:
        int c = 300;
    };
```

```
int main()
  {
      mca obj;
      obj.display();
      cout<<obj.a<<endl;
      cout<<obj.b<<endl;
      cout<<obj.c;
      return 0;
  }
```

Output:

```
Welcome to Lpu
100
200
300
```

Ans:2: Overload Binary Operator:-

```
#include<iostream>
using namespace std;
class MCA
 {
        int a, b;
        public:
        void get(int x, int y)
        {
              a = x;
              b = y;
        }
        void display()
        {
          cout<<a<<endl<<b<<endl;
        }
      MCA operator *(MCA  c);
};
 MCA  MCA :: operator *(MCA  c)
  {
        MCA temp;
        temp.a = a*  c.a;
        temp.b = b*  c.b;
        return temp;
  }
```

```
int main()
{
        MCA m1, m2, m3;
        m1.get(2,2);
        m2.get(2,2);

        m3 = m1 * m2;
        m3.display();
        return 0;
}
```

Output:

```
4
4
```

Ans:-3 Class to Class conversion :-

```
#include<iostream>
using namespace std;
class Class_To_Class_Coversion
{
        int b, c;
        Public:
            Class_To_Class_Conversion()
            {
            }
        Class_To_Class_Conversion(int m)
        {
                b = m/60;
                c = m%.60;
        }
      void display()
      {
          cout<< "The Hours are:" << b << endl;
          cout<< "The Mins are:" << c << endl;
      }
};
class Class_To_Class_Conversion2
{
        int b, c;
        Public :
       Class_To_Class_Conversion2()
        {
        }
      Class_To_Class_Conversion2(int a)
        {
            b = a/60;
            c = a%.60;
      }
```

```
    Void display()
     {
        Cout << "The Hours are:" << b << endl;
        Cout << "The Mins are:" << c << endl;
     }
};
 int main()
 {
     Class_To_Class_Conversion m(120);
     Class_To_Class_Conversion a(140);
       m.display();
       a.display();
 }
```

Output:-

The Hours are: 2
The ~~Hours~~ Mins are: 0
The Hours are: 2
The Mins are: 20