OOP LAB 7
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2005839

Q1.
```cpp
//T.DAMAN
//2005839
// Q1
#include<iostream>
using namespace std;
class comp
{
    public:
    int real,imag,real2,imag2;
    comp()
    {
        real=0;
        real2=0;
        imag=0;
        imag2=0;

    }
    comp(int real1)
    {
        real=real1;
        imag=real1;
    }
     comp(int real3,int imag3)
    {
        real2=real3;
        imag2=imag3;
    }
  friend void complexproduct(comp c ,comp c2);

};
void complexproduct(comp c ,comp c2)
    {
        int x=c.real*c2.real2+(c.imag*c2.imag2*(-1));
        int y=(c.real*c2.imag2)+(c.imag*c2.real2);
        cout<<"the resultant is : "<<x<<"+"<<y<<"i";
    }
int main()
{
    int real,real2,imag2;
    cout<<"ENTER REAL AND IMAGINARY VALUE FOR NUMBER 1: ";
    cin>>real;
    cout<<"ENTER REAL VALUE FOR NUMBER 2: ";
    cin>>real2;
    cout<<"ENTER IMAGINARY VALUE FOR NUMBER 2: ";
    cin>>imag2;
    comp c(real);
    comp c2(real2,imag2);
    comp c3;
  complexproduct(c,c2);
}
```

Output:-
ENTER REAL AND IMAGINARY VALUE FOR NUMBER 1: 12
ENTER REAL VALUE FOR NUMBER 2: 13
ENTER IMAGINARY VALUE FOR NUMBER 2: 14
the resultant is : -12+324i
Q2.

```cpp
//T.DAMAN
//2005839
//q2
#include<iostream>
using namespace std;
class fibo
```

```
{
private:
unsigned long int f0,f1,fib;
public:
fibo()
{
f0=0;
f1=1;
fib=f0+f1;
}
fibo (fibo &ptr)
{
f0=ptr.f0;
f1=ptr.f1;
fib=ptr.fib;
}
void increment()
{
f0=f1;
f1=fib;
fib=f0+f1;
}
void display()
{
cout << fib <<" ";
}
}; //end of class construction
int main()
{
    int n;
    cout<<"enter the no. of terms you want "<<endl;
    cin>>n;
fibo number;
for (int i=0; i<=n;i++)
{
number.display();
number.increment();
}
return 0;
}
```

Output:-
enter the no. of terms you want
8
0 1 1 2 3 5 8 13 21 34 55

Q3.

```
//T.DAMAN
//2005839
//q3
#include<iostream>
using namespace std;
class A
{
    int a;
    int b;
    int c;
    public:
    void get()
    {int x,y,z;
    cout<<"enter the numbers:"<<endl;
    cin>>x>>y>>z;
    a=x;
    b=y;
    c=z;
    }
friend int greatest( A);
};
int greatest(A d )
{
    if(d.a>d.b)
```

```
    {
        if(d.b>d.c)
        {
            return d.a;
        }
        else if(d.c>d.a)
        {
            return d.c;
        }

    }
    else if(d.a<d.b)
    {
         if(d.a>d.c)
        {
            return d.b;
        }
        else if(d.c>d.b)
        {
            return d.c;
        }
    }

}
int main(){
    A d;
    d.get();
    cout<<"greatest is :"<<greatest(d);
    return 0;
}
```

Output:-

enter the numbers:

13 21 10

greatest is :21

Q4.

```
//T.DAMAN
//2005839
//q4
#include<iostream>
using namespace std;
class A
{
    int a;
    int b;
    public:
    void get()
    {int x,y;
    cout<<"enter the numbers:"<<endl;
    cin>>x>>y;
    a=x;
    b=y;
    }
friend int greatest( A);
};
int greatest(A c )
{
    if(c.a>c.b)
    {
        return c.a;
    }
    else

    return c.b;
}
int main(){
    A c;
    c.get();
    cout<<"greatest is :"<<greatest(c);
    return 0;
}
```

Output:-

enter the numbers:
34 56
greatest is :56

Q5.

```
//T.DAMAN
//2005839
//q5
#include<iostream>
using namespace std;
class DAMAN1; //Forward declaration
class DAMAN
{
         int data;
         public:
    void setvalue()
    {int value;
        cout<<"entre the value:"<<endl;
        cin>>value;
        data=value;
    }
    friend void add(DAMAN1,DAMAN);
};
class DAMAN1{
         int data;
         public:
    void setvalue()
    { int value;
        cout<<"entre the value:"<<endl;
        cin>>value;
        data=value;
    }
    friend void add(DAMAN1,DAMAN);
};
void add (DAMAN1  obj1, DAMAN obj2 )
{
cout<<"sum="<<obj1.data+obj2.data;
}
int main(){
DAMAN1 X;  DAMAN A;
X.setvalue();
A.setvalue();
add(X,A);
return 0;
}
```

Output:-
entre the value:
13
entre the value:
14
sum=27