



Q.1. Answer the following short questions:

(6x5=30)

I. Write down the output of the following code.

```
#include<iostream>
using namespace std;
class A{
    int i_A;
public:
    A(int x){ i_A = x; }
};

int main(){
    A a;
    cout<<"Hello"<<endl;
    return 0;
}
```

II. What is difference between a Class and Object?

III. Why Operator overloading is used?

IV. Write the output of the following code

```
#include<iostream>
using namespace std;
class A{
public:
    A(){
        cout << "A" << endl;
    }
    ~A(){
        cout << "~A" << endl;
    }
};
class B : A{
public:
    B(){
        cout << "B" << endl;
    }
    ~B(){
        cout << "~B" << endl;
    }
};
int main(){
    B b;
    return 0;
}
```

V. Write down the difference between Copy Constructor and Assignment operator with the help of example.

vi. Write down the difference between private, protected and public access specifiers.

Q.2. Answer the following questions.

(3x10=30)

Consider the following code:

<pre>class CString { private: int size; char * str; public: //All the function discussed in //latest lab/class implementation };</pre>	<pre>class Person { private: CString fname; CString lname; int age; public: Person(CString n="Muhammad", CString e="Abdullah",int a=24); Person(const Person & ref); };</pre>
--	---

Your task is to write/define the following:

- 1) Copy constructor in CString class.
- 2) Parameterized constructor in Person class as given in the above code:

```
Person(CString n="Muhammad", CString e="Ali",int a=24)
```
- 3) Copy constructor in Person class.