Interview Questions

Que: Does every virtual function need to be always overridden?

- No, It is not always mandatory to redefine a virtual function.

- It can be used as it is in the base class.

Que: What is an abstract class?

- An abstract class is a class that has at least one pure virtual function in its definition.

- An abstract class can never be instanced (creating an object).

- It can only be inherited, and the methods could be overwritten.

Que: Can we have a constructor as Virtual?

- Constructors cannot be virtual because they need to be defined in the class.

Que: What is a pure virtual function?

- A pure virtual function (or abstract function) in C++ is a virtual function for which we don't have an implementation.

- We only declare it.

- A pure virtual function is declared by assigning 0 in the declaration.

Que: What are the characteristics of Friend Function?

★A friend function is not in the scope of the class, in which it has been declared as friend.

★It cannot be called using the object of that class.

★ It can be invoked like a normal function without any object.

★ Unlike member functions, it cannot use the member names directly.

★ It can be declared in public or private parts without affecting its meaning.

★ Usually, it has objects as arguments.

What is the output of this program?

```cpp
#include <iostream>
using namespace std;
    class Box
{
    double width;

public:
    friend void printWidth( Box box );
    void setWidth( double wid );
};
void Box::setWidth( double wid )
{
    width = wid;
}
void printWidth( Box box )
{
    box.width = box.width * 2;
    cout << "Width of box : " << box.width << endl;
}
int main( )
{
    Box box;
    box.setWidth(10.0);
    printWidth( box );
    return 0;
}
```

Answer: 20

Explanation:

We are using the friend function for print width and multiplied the width value by 2, So we got the output as 20