Lab activity – Inheritance SSW315

1. Output of following Java Program?

class Base {

public void show() {

System.out.println("Base::show() called");

}

}

class Derived extends Base {

public void show() {

System.out.println("Derived::show() called");

}

}

public class Main {

public static void main(String[] args) {

Base b = new Derived();;

b.show();

}

}

1. Derived::show() called
2. Base::show() called
3. Output of following Java Program?

class Base {

final public void show() {

System.out.println("Base::show() called");

}

}

class Derived extends Base {

public void show() {

System.out.println("Derived::show() called");

}

}

class Main {

public static void main(String[] args) {

Base b = new Derived();;

b.show();

}

}

1. Base::show() called
2. Derived::show() called
3. Compiler Error
4. Runtime Error
5. Output of following Java Program?

class Base {

public static void show() {

System.out.println("Base::show() called");

}

}

class Derived extends Base {

public static void show() {

System.out.println("Derived::show() called");

}

}

class Main {

public static void main(String[] args) {

Base b = new Derived();;

b.show();

}

}

1. Base::show() called
2. Derived::show() called
3. Compiler Error
4. Which of the following is true about inheritance in Java?

1) Private methods are final.

2) Protected members are accessible within a package and

inherited classes outside the package.

3) Protected methods are final.

4) We cannot override private methods.

1. 1, 2 and 4
2. Only 1 and 2
3. 1, 2 and 3
4. 2, 3 and 4
5. Output of following Java program?

class Base {

public void Print() {

System.out.println("Base");

}

}

class Derived extends Base {

public void Print() {

System.out.println("Derived");

}

}

class Main{

public static void DoPrint( Base o ) {

o.Print();

}

public static void main(String[] args) {

Base x = new Base();

Base y = new Derived();

Derived z = new Derived();

DoPrint(x);

DoPrint(y);

DoPrint(z);

}

}

1. Base

Derived

Derived

1. Base

Base

Derived

1. Base

Derived

Base

1. Compiler Error
2. Predict the output of following program. Note that foo() is public in base and private in derived.

class Base {

public void foo() { System.out.println("Base"); }

}

class Derived extends Base {

private void foo() { System.out.println("Derived"); }

}

public class Main {

public static void main(String args[]) {

Base b = new Derived();

b.foo();

}

}

1. Base
2. Derived
3. Compiler Error
4. Runtime Error
5. Which of the following is true about inheritance in Java. 1) In Java all classes inherit from the Object class directly or indirectly. The Object class is root of all classes. 2) Multiple inheritance is not allowed in Java. 3) Unlike C++, there is nothing like type of inheritance in Java where we can specify whether the inheritance is protected, public or private.
6. 1, 2 and 3
7. 1 and 2
8. 2 and 3
9. 1 and 3
10. Predict the output of following Java Program

// filename Main.java

class Grandparent {

public void Print() {

System.out.println("Grandparent's Print()");

}

}

class Parent extends Grandparent {

public void Print() {

System.out.println("Parent's Print()");

}

}

class Child extends Parent {

public void Print() {

super.super.Print();

System.out.println("Child's Print()");

}

}

public class Main {

public static void main(String[] args) {

Child c = new Child();

c.Print();

}

}

1. Compiler Error in super.super.Print()
2. Grandparent's Print()

Parent's Print()

Child's Print()

1. Runtime Error