1.What is the output of the below program

**class** Parent1 {

**public** Object m1(**int** a) {

System.***out***.println("parent method");

**return** **null**;

}

}

**class** Child1 **extends** Parent1 {

**public** String m1(**int** b) {

System.***out***.println("child method");

**return** **null**;

}

}

**public** **class** OverridingCoVariant {

**public** **static** **void** main(String[] args) {

Parent1 p = **new** Parent1();

Child1 c = **new** Child1();

p.m1(0);

c.m1(0);

}

}

1. Parent method child method
2. Parent method parent method
3. Child method child method
4. Child method parent method

2.What is the output of below program  
 **class** Parent2 {

**public void** m1() {

System.***out***.println("parent class m1 method");

}

}

**class** Child2 **extends** Parent2 {

**void** m1() {

System.***out***.println("child class m1 method");

}

}

**public** **class** OveridingWrtVisibility {

**public** **static** **void** main(String[] args) {

Parent2 p = **new** Parent2();

Child2 c = **new** Child2();

Parent2 p2 = **new** Child2();

c.m1();

p.m1();

p2.m1();

}

}

1. Parent class m1 method child class m1 method parent class m1 method
2. child class m1 method parent class m1 method parent class m1 method
3. child class m1 method parent class m1 method child class m1 method
4. None of the above

Visibility should be same or more but not decreased  
  
public>protected>default>privat

3.What is the output of the below program   
 **class** Parent2 {

**void** m1() {

System.***out***.println("parent class m1 method");

}

}

**class** Child2 **extends** Parent2 {

protected **void** m1() {

System.***out***.println("child class m1 method");

}

}

**public** **class** OveridingWrtVisibility {

**public** **static** **void** main(String[] args) {

Parent2 p = **new** Parent2();

Child2 c = **new** Child2();

Parent2 p2 = **new** Child2();

c.m1();

p.m1();

p2.m1();

}

}

1. Parent class m1 method child class m1 method parent class m1 method
2. child class m1 method parent class m1 method parent class m1 method
3. child class m1 method parent class m1 method child class m1 method
4. None of the above

4.What is the output of the below program  
 **class** Parent3 {

**public** **strictfp** **void** m1() {

System.***out***.println("parent class m1");

}

}

**class** Child3 **extends** Parent3 {

**public** **void** m1() {

System.***out***.println("child class m1");

}

}

**public** **class** OverrdingwrtModifier1 {

**public** **static** **void** main(String[] args) {

Parent3 p = **new** Child3();

p.m1();

}

}

1. Parent class m1
2. Child class m1
3. Compilation error
4. None of the above

Ans b

Explaination while overriding strictfp can be changed to nonstrictfp and vice versa   
same with native,abstract   
for final we cannot override  
for static overriding not applicabl

5.What is the output for the below program  
 **abstract** **class** Parent4 {

**public** **abstract** **void** m1();

}

**class** Child4 **extends** Parent4 {

**public** **void** m1() {

System.***out***.println("child class m1 method");

}

}

**public** **class** OverridingWrtModifier2 {

**public** **static** **void** main(String[] args) {

Parent4 p = **new** Child4();

p.m1();

}

}

1. child class m1 method
2. Compilation eror
3. Runtime error
4. None of the above

6.What is the output of below program

**class** Parent5 {

**public** **static** **void** m1() {

System.***out***.println("parent class m1 method");

}

}

**class** Child5 **extends** Parent5 {

**public** **static** **void** m1() {

System.***out***.println("child class m1 method");

}

}

**public** **class** OverridingWrtModifier3 {

**public** **static** **void** main(String[] args) {

Parent5 p = **new** Parent5();

Child5 c = **new** Child5();

Parent5 p4 = **new** Child5();

p.*m1*();

c.*m1*();

p4.*m1*();

}

}

1. parent class m1 method child class m1 method child class m1 method
2. parent class m1 method child class m1 method parent class m1 method
3. compilation error
4. none of the above

Ans b  
Explainaion static felds cannot be overridden even though the syntax is same for parent and child class method they are called as method hiding and not overrding   
All static fields are independent of objects cz they are loaded at the time of class loading

7.What is the output of the program when we run individual classes  
 **class** Parent6 {

**public** **static** **void** main(String[] args) {

System.***out***.println("parent m1 method");

}

}

**class** Child6 **extends** Parent6 {

**public** **static** **void** main(String[] args) {

System.***out***.println("child m1 method");

}

}

8.What is the output of below code  
 **class** Parent7 {

**public** **void** m1() **throws** Exception {

System.***out***.println("parent class m1 method");

}

}

**class** Child7 **extends** Parent7 {

**public** **void** m1() **throws** RuntimeException {

System.***out***.println("child class m1 method");

}}

**public** **class** OverridingWrtThrowsKeyword {

**public** **static** **void** main(String[] args) **throws** Exception {

Parent7 p = **new** Child7();

p.m1();

}

}

1. parent class m1 method
2. child class m1 method
3. Compilation error
4. None of the above

9.What is the output of the below code  
 **class** Parent8 {

**private** **void** m1() {

System.***out***.println("parent class");

}

}

**class** Child8 **extends** Parent8 {

**private** **void** m1() {

System.***out***.println("child class");

}

}

**public** **class** OveridingWrtModifier4 {

**public** **static** **void** main(String[] args) {

Parent8 p = **new** Parent8();

Child8 c = **new** Child8();

Parent8 p8 = **new** Child8();

p.m1();

c.m1();

p8.m1();

}

}

1. parent class child class parent class
2. parent class child class child class
3. child class child class parent class
4. None of the above

10.What is the output of below code  
 **interface** Interf1 {

**void** m1();

}

**interface** Interf2 {

**void** m1();

}

**public** **class** OverridingWrtInterface **implements** Interf1, Interf2 {

**public** **void** m1() {

System.***out***.println("overridden interf1 method");

}

**public** **void** m1() {

System.***out***.println("overridden interf2 method");}

**public** **static** **void** main(String[] args) {

Interf1 i = **new** OverridingWrtInterface();

i.m1();

Interf2 i2 = **new** OverridingWrtInterface();

i2.m1();}

}

1. overridden interf1 method overridden interf2 method
2. overridden interf2 method overridden interf1 method
3. overridden interf2 method overridden interf2 method
4. None of the above

11.What is the output of below program

**interface** Interf3 {

**void** m1();

}

**interface** Interf4 {

**void** m1(**int** a);

}

**public** **class** OverridingWrtInterface2 **implements** Interf3, Interf4 {

**public** **void** m1(**int** a) {

System.***out***.println("int param ");

}

**public** **void** m1() {

System.***out***.println("no parameter");

}

**public** **static** **void** main(String[] args) {

OverridingWrtInterface2 i1 = **new** OverridingWrtInterface2();

i1.m1();

i1.m1(10);

}

}

12.What is the output of below program

**interface** Interf3 {

**void** m1();

}

**interface** Interf4 {

**int** m1();

}

**public** **class** OverridingWrtInterface2 **implements** Interf3, Interf4 {

**public** **void** m1() {

System.***out***.println("return nothing ");

}

**public** **int** m1() {

System.***out***.println("return int");

return 0;

}

**public** **static** **void** main(String[] args) {

Interf3 i1 = **new** OverridingWrtInterface2();

i1.m1();

Interf4 i2 = **new** OverridingWrtInterface2();

i2.m1();

}

}

13.What is the output of below program  
 **interface** Interf5 {

**default** **void** m1() {

System.***out***.println("m1 default method");

}

}

**interface** Interf6 {

**default** **void** m2() {

System.***out***.println("m2 default method");

}

}

**public** **class** OverridingWrtDefaultMethods **implements** Interf5, Interf6 {

**public** **static** **void** main(String[] args) {

OverridingWrtDefaultMethods o = **new** OverridingWrtDefaultMethods();

o.m1();

o.m2();

}

}

14.What is the output of below code

**class** Parent9 {

**int** x = 10;

}

**class** Child9 **extends** Parent9 {

**int** x = 50;

}

**public** **class** OverridingWrtVariable {

**public** **static** **void** main(String[] args) {

Child9 c = **new** Child9();

Parent9 p = **new** Child9();

System.***out***.println(c.x + p.x);

}}