**Core Java, Quiz-8, Date: 24/09/2018**

**1. Which is true?**

A. "X extends Y" is correct if and only if X is a class and Y is an interface

B. "X extends Y" is correct if and only if X is an interface and Y is a class

C. "X extends Y" is correct if X and Y are either both classes or both interfaces

D. "X extends Y" is correct for all combinations of X and Y being classes and/or interfaces

# 2. Which of the following is true?

# 1. A class can extend more than one class. 2. A class can extend only one class but many interfaces. 3. An interface can extend many interfaces. 4. An interface can implement many interfaces. 5. A class can extend one class and implement many interfaces.

A. 1 and 2

B. 2 and 4

C. 3 and 5

D. 3 and 4

E. 2 and 5

# 3. What is the result of compiling and running the following code?

**class Base{**

**public Base(){**

**System.out.print("Base");**

**}**

**}**

**public class Derived extends Base{**

**public Derived(){**

**this("IDB");**

**System.out.print("Derived");**

**}**

**public Derived(String s){**

**System.out.print(s);**

**}**

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

**new Derived();**

**}**

**}**

A. IDBDerived

B. IDBBaseDerived

C. Base**IDB**Derived

D. IDBDerivedBase

E. Compilation Error

# 4. What is the output of the following program code?

**abstract class C1{**

**public C1(){**

**System.out.print(1);**

**}**

**}**

**class C2 extends C1{**

**public C2(){**

**System.out.print(2);**

**}**

**}**

**class C3 extends C2{**

**public C3(){**

**System.out.println(3);**

**}**

**}**

**public class Test{**

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

**new C3();**

**}**

**}**

A. 12

B. 23

C. 123

D. 321

**Answer: Option C**

# 5. The concept of multiple inheritance is implemented in Java by I.   Extending two or more classes. II.  Extending one class and implementing one or more interfaces. III. Implementing two or more interfaces.

A. Only (II)

B. (I) and (II)

C. (II) and (III)

D. Only (I)

E. Only (III)

# 6. What will be the output?

**interface A{**

**public void method1();**

**}**

**class One implements A{**

**public void method1(){**

**System.out.println("Class One method1");**

**}**

**}**

**class Two extends One{**

**public void method1(){**

**System.out.println("Class Two method1");**

**}**

**}**

**public class Test extends Two{**

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

**A a = new Two();**

**a.method1();**

**}**

**}**

A. Compilation Error

B. Class One method1

C. Class Two method1

D. Throws a NoSuchMethodException at runtime.

E. None of these

# 7. What is the result of compiling and running this program?

**class Mammal{**

**void eat(Mammal m){**

**System.out.println("Mammal eats food");**

**}**

**}**

**class Cattle extends Mammal{**

**void eat(Cattle c){**

**System.out.println("Cattle eats hay");**

**}**

**}**

**class Horse extends Cattle{**

**void eat(Horse h){**

**System.out.println("Horse eats hay");**

**}**

**}**

**public class Test{**

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

**Mammal h = new Horse();**

**Cattle c = new Horse();**

**c.eat(h);**

**}**

**}**

A. prints "Mammal eats food"

B. prints "Cattle eats hay"

C. prints "Horse eats hay"

D. Class cast Exception at runtime.

E. None of these

**8.Determine output:**

**class A{**

**public void method1(){**

**System.out.print("Class A method1");**

**}**

**}**

**class B extends A{**

**public void method2(){**

**System.out.print("Class B method2");**

**}**

**}**

**class C extends B{**

**public void method2(){**

**System.out.print("Class C method2");**

**}**

**public void method3(){**

**System.out.print("Class C method3");**

**}**

**}**

**public class Test{**

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

**A a = new A();**

**C c = new C();**

**c.method2();**

**a = c;**

**a.method3();**

**}**

**}**

A. Class B method2 Class C method3

B. Class C method2 Class C method3

C. Compilation Error

D. Runtime exception

E. None of these

# 9. What will be printed after executing following program code?

**class Base{**

**int value = 0;**

**Base(){**

**addValue();**

**}**

**void addValue(){**

**value += 10;**

**}**

**int getValue(){**

**return value;**

**}**

**}**

**class Derived extends Base{**

**Derived(){**

**addValue();**

**}**

**void addValue(){**

**value += 20;**

**}**

**}**

**public class Test{**

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

**Base b = new Derived();**

**System.out.println(b.getValue());**

**}**

**}**

A. 30

B. 10

C. 40

D. 20

E. None of these

# 10. What will be the output?

**class Parent{**

**public void method(){**

**System.out.println("Hi i am parent");**

**}**

**}**

**public class Child extends Parent{**

**protected void method(){**

**System.out.println("Hi i am Child");**

**}**

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

**Child child = new Child();**

**child.method();**

**}**

**}**

A. Compiles successfully and print

B. Compiles successfully and print

C. Compile time error

D. Run Time error

E. None of This

# 11. What will be the output?

**class One{**

**final int a = 15;**

**}**

**class Two extends One{**

**final int a = 20;**

**}**

**public class Test extends Two{**

**final int a = 30;**

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

**Test t = new One();**

**System.out.print(t.a);**

**}**

**}**

A. 15

B. 20

C. 30

D. Compiler Error

E. None of these

# 12. What will be the output?

**class A{**

**int i = 10;**

**public void printValue(){**

**System.out.print("Value-A");**

**}**

**}**

**class B extends A{**

**int i = 12;**

**public void printValue(){**

**System.out.print("Value-B");**

**}**

**}**

**public class Test{**

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

**A a = new B();**

**a.printValue();**

**System.out.print(a.i);**

**}**

**}**

A. Value-B 11

B. Value-B 10

C. Value-A 10

D. Value-A 11

E. None of these

# 13. What will be the result after compiling this code?

**class SuperClass{**

**public int doIt(String str, Integer... data)throws Exception{**

**String signature = "(String, Integer[])";**

**System.out.println(str + " " + signature);**

**return 1;**

**}**

**}**

**public class Test extends SuperClass{**

**public int doIt(String str, Integer... data){**

**String signature = "(String, Integer[])";**

**System.out.println("Overridden: " + str + " " +signature);**

**return 0;**

**}**

**public static void main(String... args){**

**SuperClass sb = new Test();**

**sb.doIt("hello", 3);**

**}**

**}**

A. Overridden: hello (String, Integer[])

B. hello (String, Integer[])

C. Compilation fails

D. None of these

**14. class A{**

**A(String s){}**

**A(){}**

**}**

**class B extends A{**

**B(){}**

**B(String s){**

**super(s);**

**}**

**void test(){**

**// insert code here**

**}**

**}**

# Which of the below code can be insert at line 7 to make clean compilation ?

A. A a = new B();

B. A a = new B(5);

C. A a = new A(String s);

D. All of the above

E. None of these

# 15. Determine output:

**class A{**

**public void printValue(){**

**System.out.println("Value-A");**

**}**

**}**

**class B extends A{**

**public void printNameB(){**

**System.out.println("Name-B");**

**}**

**}**

**class C extends A{**

**public void printNameC(){**

**System.out.println("Name-C");**

**}**

**}**

**1. public class Test{**

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

**3. B b = new B();**

**4. C c = new C();**

**5. newPrint(b);**

**6. newPrint(c);**

**7. }**

**8. public static void newPrint(A a){**

**9. a.printValue();**

**10. }**

**11. }**

A. Value-A Name-B

B. Value-A Value-A

C. Value-A Name-C

D. Name-B Name-C

E. None of these

# 16. Determine output:

**class A{**

**public void printName(){**

**System.out.println("Name-A");**

**}**

**}**

**class B extends A{**

**public void printName(){**

**System.out.println("Name-B");**

**}**

**}**

**class C extends A{**

**public void printName(){**

**System.out.println("Name-C");**

**}**

**}**

**1. public class Test{**

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

**3. B b = new B();**

**4. C c = new C();**

**5. b = c;**

**6. newPrint(b);**

**7. }**

**8. public static void newPrint(A a){**

**9. a.printName();**

**10. }**

**11. }**

A. Name B

B. Name C

C. Compilation fails due to an error on lines 5

D. Compilation fails due to an error on lines 9

E. None of these

# 17. What is the output for the below code ?

**class A{**

**private void printName(){**

**System.out.println("Value-A");**

**}**

**}**

**class B extends A{**

**public void printName(){**

**System.out.println("Name-B");**

**}**

**}**

**public class Test{**

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

**B b = new B();**

**b.printName();**

**}**

**}**

A. Value-A

B. Name-B

C. Value-A Name-B

D. Compilation fails - private methods can't be override

E. None of these

# 18. What will be the result of compiling and running the given code?

**class A{**

**int b=10;**

**private A(){**

**this.b=7;**

**}**

**int f(){**

**return b;**

**}**

**}**

**class B extends A{**

**int b;**

**}**

**public class Test{**

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

**A a = new B();**

**System.out.println(a.f());**

**}**

**}**

A. Compilation Fails

B. Prints 0

C. Prints 10

D. Prints 7

E. None of these

# 19. What will be the result of compiling and executing the following program code?

**class Vehicle{**

**public void printSound(){**

**System.out.print("vehicle");**

**}**

**}**

**class Car extends Vehicle{**

**public void printSound(){**

**System.out.print("car");**

**}**

**}**

**class Bike extends Vehicle{**

**public void printSound(){**

**System.out.print("bike");**

**}**

**}**

**public class Test{**

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

**Vehicle v = new Car();**

**Bike b = (Bike) v;**

**v.printSound();**

**b.printSound();**

**}**

**}**

A. Compilation fails.

B. ClassCastException exception is thrown at runtime.

C. "vehiclecar" is printed.

D. "vehiclebike" is printed.

E. "carcar" is printed.

# 20. Determine output:

**class Small{**

**public Small(){**

**System.out.print("a ");**

**}**

**}**

**class Small2 extends Small{**

**public Small2(){**

**System.out.print("b ");**

**}**

**}**

**class Small3 extends Small2{**

**public Small3(){**

**System.out.print("c ");**

**}**

**}**

**public class Test{**

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

**new Small3();**

**}**

**}**

A. a

B. c

C. a b c

D. c b a

E. The code runs without output.