Q1. Which of the following statements about the Object class in Java is true?

A. Every Java class extends Object class either directly or indirectly.

B. Only classes without a superclass extend Object class.

C. The Object class cannot be extended.

D. Object class is an abstract class.

Q2. What will be the output of the following code?

```
class A {
    void display() {
        System.out.println("Class A");
    }
}
class B extends A {
    void display() {
        System.out.println("Class B");
    }
}
public class Main {
    public static void main(String[] args) {
        A obj = new B();
        obj.display();
    }
}
```

A. Class A

B. Class B

C. Compilation error

D. Runtime error

Q3. Which keyword is used to create a subclass in Java?

A. implements

B. inherits

C. extends

D. interface

Q4. Which keyword is used to refer to the immediate parent class in Java?

A. this

B. super

C. extends

D. parent

Q5. What will be the output of this program?

```
abstract class Parent {
    abstract void show();
}
class Child extends Parent {
    void show() {
        System.out.println("Child class method");
    }
}
public class Main {
    public static void main(String[] args) {
        Parent p = new Child();
        p.show();
```

```
    }
}
```

A. Compilation Error

B. Runtime Error

C. Child class method

D. No Output

Q6. What happens if an abstract class does not have any abstract methods?

A. It will not compile.

B. The class can still be abstract.

C. Java will automatically provide an abstract method.

D. It becomes a concrete class.

Q7. What will be the output of this code?

```
class Animal {
    void makeSound() {
        System.out.println("Animal makes a sound");
    }
}
class Dog extends Animal {
    void makeSound() {
        System.out.println("Dog barks");
    }
}
public class Main {
    public static void main(String[] args) {
        Animal a = new Dog();
```

```
        a.makeSound();
    }
}
```

A. Animal makes a sound

B. Dog barks

C. Compilation error

D. Runtime error

Q8. Which of the following statements about inheritance is false?

A. Java supports single inheritance.

B. Java allows multiple class inheritance using extends.

C. Interfaces can be used to achieve multiple inheritance.

D. The super keyword can be used to invoke the parent class constructor.

Q9. Which of the following statements about abstract classes is correct?

A. Abstract classes cannot have constructors.

B. Abstract classes cannot have static methods.

C. An object of an abstract class cannot be instantiated.

D. Abstract classes cannot have final methods.

Q10. Which of the following correctly describes the relationship between interfaces and abstract classes in the context of inheritance?

A. Abstract classes can implement interfaces and provide default method implementations.

B. Interfaces can extend abstract classes.

C. Interfaces must be extended using the extends keyword only by other interfaces.

D. An abstract class can extend multiple interfaces directly.

Q11. Which of the following statement(s) with regard to an abstract class in JAVA is/are TRUE?

I. An abstract class is one that is not used to create objects.

II. An abstract class is designed only to act as a base class to be inherited by other classes.

A. Only I

B. Only II

C. Neither I nor II

D. Both I and II

Q12. In Java, we can make a class abstract by

A. Declaring it abstract using the abstract keyword.

B. Making at least one method final.

C. Declaring all methods as static.

D. Declaring at least one method as abstract.

Q13. Which of the following is true about an abstract class in Java?

A. An abstract class can be instantiated directly.

B. An abstract class can contain both abstract and non-abstract methods.

C. All methods in an abstract class must be abstract.

D. An abstract class cannot have a constructor.

Q14. Type IV JDBC driver is a driver

A. which is written in C++

B. which requires an intermediate layer

C. which communicates through Java sockets

D. which translates JDBC function calls into API not native to DBMS

Q15. Predict the output of the following program.

```
abstract class demo {
    public int a;
    demo() {
```

```
        a = 10;
    }
    abstract public void set();
    abstract final public void get();
}

class Test extends demo {
    public void set(int a) {
        this.a = a;
    }
    final public void get() {
        System.out.println("a = " + a);
    }
    public static void main(String[] args) {
        Test obj = new Test();
        obj.set(20);
        obj.get();
    }
}
```

A. a = 10

B. a = 20

C. Compilation error

Q16. Which of the following is FALSE about abstract classes in Java

A. If we derive an abstract class and do not implement all the abstract methods, then the derived class sho

B. Abstract classes can have constructors

C. A class can be made abstract without any abstract method

D. A class can inherit from multiple abstract classes.

Q17. Which of the following is true about interfaces in java.

1) An interface can contain following type of members.

public, static, final fields (i.e., constants)

default and static methods with bodies

2) An instance of interface can be created.

3) A class can implement multiple interfaces.

4) Many classes can implement the same interface.

A. 1, 3 and 4

B. 1, 2 and 4

C. 2, 3 and 4

D. 1, 2, 3 and 4