

Q1 - What is the output of the following application?

```
class Automobile {
    private String drive() {
        return "Driving vehicle";
    }
}

class Car extends Automobile {
    protected String drive() {
        return "Driving car";
    }
}

public class ElectricCar extends Car {

    @Override
    public final String drive() {
        return "Driving electric car";
    }

    public static void main(String[] wheels) {
        final Car car = new ElectricCar();
        System.out.print(car.drive());
    }
}
```

- A. Driving vehicle
- B. **Driving electric car**
- C. Driving car
- D. The code does not compile

Q2 - Look at the following code and choose the right option for the word :

```
// Shape.java
public class Shape {
    protected void display() {
        System.out.println("Display-base");
    }
}

// Circle.java
public class Circle extends Shape { <
    < access - modifier > void display() {
        System.out.println("Display-derived");
    }
}
```

- a. **Only protected can be used.**
- B. public and protected both can be used.
- C. public, protected, and private can be used.
- d. Only public can be used.

Q3 - What will be the output of the following program?

```
class Base {
    public Base() {
        System.out.println("Base");
    }
}

class Derived extends Base {
    public Derived() {
        System.out.println("Derived");
    }
}
```

```

class DeriDerived extends Derived {
    public DeriDerived() {
        System.out.println("DeriDerived");
    }
}

public class Test {
    public static void main(String[] args) {
        Derived b = new DeriDerived();
    }
}

```

- a) Base  
Derived  
DeriDerived
- b) Derived  
DeriDerived
- c) DeriDerived  
Derived  
Base
- d) DeriDerived  
Derived

Q4 - Consider the following program:

```

class Base {
    public Base() {
        System.out.print("Base ");
    }

    public Base(String s) {
        System.out.print("Base: " + s);
    }
}

class Derived extends Base {
    public Derived(String s) {
        super(); // Stmt-1
        super(s); // Stmt-2
        System.out.print("Derived ");
    }
}

class Test {
    public static void main(String[] args) {
        Base base = new Derived("Hello ");
    }
}

```

Select three correct options from the following list:

- a) Removing Stmt-1 will make the program compilable and it will print the following: Base Derived.
- b) Removing Stmt-1 will make the program compilable and it will print the following: Base: Hello Derived.
- c) Removing Stmt-2 will make the program compilable and it will print the following: Base Derived.
- d) Removing both Stmt-1 and Stmt-2 will make the program compilable and it will

print the following: Base Derived.

e) Removing both Stmt-1 and Stmt-2 will make the program compilable and it will print the following: Base: Hello Derived.

Q5 - What is the output of the following application?

```
abstract class Car {
    static {
        System.out.print("1");
    }

    public Car(String name) {
        super();
        System.out.print("2");
    }

    {
        System.out.print("3");
    }
}

public class BlueCar extends Car {
    {
        System.out.print("4");
    }

    public BlueCar() {
        super("blue");
        System.out.print("5");
    }

    public static void main(String[] gears) {
        new BlueCar();
    }
}
```

A. 23451

B. 12354

C. 13245

D. The code does not compile.

Q6 - What is the output of the following application?

```
class Math {
    public final double secret = 2;
}

class ComplexMath extends Math {
    public final double secret = 4;
}

public class InfiniteMath extends ComplexMath {
    public final double secret = 8;

    public static void main(String[] numbers) {
        Math math = new InfiniteMath();
        System.out.print(math.secret);
    }
}
```

A. 2

B. 4

C. 8

D. The code does not compile.

Q7 - Consider the following program and predict the output:

```
public class Test {  
    public void print(Integer i) {  
        System.out.println("Integer");  
    }  
  
    public void print(int i) {  
        System.out.println("int");  
    }  
  
    public void print(long i) {  
        System.out.println("long");  
    }  
  
    public static void main(String args[]) {  
        Test test = new Test();  
        test.print(10);  
    }  
}
```

- a) The program results in a compiler error (â€œambiguous overloadâ€œ).
- b) long
- c) Integer
- d) int

1. What must be the first characters of a database URL?

- A. db,
- B. db:
- C. jdbc,
- D. jdbc:

2. Which of these obtains a Connection?

- A. Connection.getConnection(url)
- B. Driver.getConnection(url)
- C. DriverManager.getConnection(url)
- D. new Connection(url)

3. Which is responsible for getting a connection to the database?

- A. Driver
- B. Connection
- C. Statement
- D. ResultSet

4. What is the output when run with a JDBC 4.0 driver if the "demo" database exists and contains an empty "users" table?

```
String url = "jdbc:derby:demo";  
try (Connection conn = DriverManager.getConnection(url); Statement stmt =  
    conn.createStatement(); ResultSet rs = stmt.executeQuery("select count(*) from  
    users")) {  
    System.out.println(rs.getInt(1));  
}
```

- A. 0
- B. 1
- C. The code does not compile.
- D. The code compiles but throws an exception at runtime.

5. Which resources have their close() method called when this code runs?

```

public static void runQuery(Connection conn) throws SQLException {
    try (Statement stmt = conn.createStatement()) {
        ResultSet rs = stmt.executeQuery("select * from clowns");
        rs.next();
    }
}

```

- A. No close() methods are called.
- B. Only Statement
- C. Only Statement and Connection
- D. **Only Statement and ResultSet**

6. How many rows are added to the colors table from running the following?

```

try (Connection conn = DriverManager.getConnection(url); Statement stmt =
conn.createStatement()) {
    conn.setAutoCommit(false);
    stmt.executeUpdate("insert into colors values ('red')");
    stmt.executeUpdate("insert into colors values ('blue')");
    conn.commit();
    conn.setAutoCommit(true);
    stmt.executeUpdate("insert into colors values ('green')");
}

```

- A. None
- B. **One**
- C. Two
- D. Three

7. What is the correct order to close database resources?

- A. Connection then Statement then ResultSet
- B. **ResultSet then Statement then Connection**
- C. Statement then Connection then ResultSet
- D. Statement then ResultSet then Connection

8. Which of the following is not a valid type of ResultSet?

- A - ResultSet.TYPE\_FORWARD\_ONLY
- B - ResultSet.TYPE\_SCROLL\_INSENSITIVE
- C - ResultSet.TYPE\_SCROLL\_SENSITIVE
- D - **ResultSet.TYPE\_BACKWARD\_ONLY**

9. Which JDBC driver type is the JDBC-ODBC type?

- Type 1**
- Type 2
- Type 3
- Type 4

10. Which of the following is efficient than a statement due to the pre-compilation of SQL?

- A - Statement
- B - PreparedStatement**
- C - CallableStatement
- D - None of the above.