

Java Class Design - 0

Consider the code of Test.java file:

```
class Printer {
    private static int count = 0;
    private Printer() {
        count++;
    }

    static Printer getInstance() {
        return PrinterCreator.printer;
    }

    static class PrinterCreator {
        static Printer printer = new Printer();
    }

    static int getCount() {
        return count;
    }
}

public class Test {
    public static void main(String[] args) {
        Printer p1 = Printer.getInstance();
        Printer p2 = Printer.getInstance();
        Printer p3 = Printer.getInstance();
        System.out.println(Printer.getCount());
    }
}
```

What will be the result of compiling and executing Test class?

- A - 0
- B - 3
- C - 1
- D - 2

Java Class Design - 1

Consider the code of Test.java file:

```
class Player {  
    String name;  
    int age;  
  
    Player() {  
        this.name = "Yuvraj";  
        this.age = 36;  
    }  
  
    public String toString() {  
        return name + ", " + age;  
    }  
  
    public Class getClass() {  
        return super.getClass();  
    }  
}  
  
public class Test {  
    public static void main(String[] args) {  
        System.out.println(new Player());  
    }  
}
```

What will be the result of compiling and executing Test class

- A - Text containing @ symbol
- B - null, 0
- C - Compilation error
- D - Yuvraj, 36

Java Class Design - 2

Given:

```
public class Initializer {  
    static int a = 10000;  
  
    static {  
        --a;  
    }  
  
    {  
        ++a;  
    }  
  
    public static void main(String[] args) {  
        System.out.println(a);  
    }  
}
```

What is the result of compiling and executing Initializer class?

- A - java.lang.ExceptionininitailizerError
- B - 9999
- C - 10000
- D - Compilation Error

Java Class Design - 3

Consider the code of Test.java file:

```
//Test.java
package com.training.ocp;

class Player {
    String name;
    int age;
    Player() {
        this.name = "Virat";
        this.age = 29;
    }

    public int hashCode() {
        return 100;
    }
}

public class Test {
    public static void main(String[] args) {
        System.out.println(new Player());
    }
}
```

Hexadecimal representation of 100 is 64.

Which of the following option is correct?

- A - Code compiles successfully and on execution always prints "com.training.ocp.Player@64" on to the console
- B - Code compiles successfully but throws an exception on executing it
- C - Code doesn't compile successfully
- D - None of the other options

Java Class Design - 4

Consider the code of Greet.java file:

```
public final class Greet {  
    private String msg;  
    public Greet(String msg) {  
        this.msg = msg;  
    }  
  
    public String getMsg() {  
        return msg;  
    }  
  
    public void setMsg(String msg) {  
        this.msg = msg;  
    }  
}
```

Is Greet class an immutable class?

A - No

B - Yes

Java Class Design - 5

Consider below code:

```
//Child.java
class Parent {
    public void m() {
        System.out.println("Parent");
    }
}

public abstract class Child extends Parent { //Line 9
    public static void main(String [] args) { //Line 10
        new Parent().m(); //Line 11
    }
}
```

What will be the result of compiling and executing Child class?

- A - Compilation error at Line 11
- B - Compilation error at Line 10
- C - Parent
- D - Compilation error at Line 9

Java Class Design - 6

Consider the code of Test.java file:

```
class Player {
    String name;
    int age;

    Player(String name, int age) {
        this.name = name;
        this.age = age;
    }

    public String toString() {
        return name + ", " + age;
    }

    public boolean equals(Player player) {
        if(player != null && this.name.equals(player.name)
            && this.age == player.age) {
            return true;
        }
        return false;
    }
}

public class Test {
    public static void main(String[] args) {
        Object p1 = new Player("Sachin", 44);
        Object p2 = new Player("Sachin", 44);
        System.out.println(p1.equals(p2));
    }
}
```

What will be the result of compiling and executing Test class?

- A - false
- B - Compilation error in Player class
- C - true
- D - Compilation error in Test class

Java Class Design - 7

Consider the code of Test.java file:

```
class Point {
    private int x;
    private int y;

    Point(){
        Point(10, 20);
    }

    Point(int x, int y) {
        this.x = x;
        this.y = y;
    }

    @Override
    public String toString() {
        return "Point{" + x + ", " + y + "}";
    }
}

public class Test {
    public static void main(String[] args) {
        Point p = new Point();
        System.out.println(p);
    }
}
```

What will be the result of compiling and executing Test class?

- A - Compilation error in Test class
- B - Point{0, 0}
- C - Point{10, 20}
- D - Compilation error in Point class

Java Class Design - 8

Consider the code of Test.java file:

```
abstract class Animal {  
    public static void vaccinate() {  
        System.out.println("Vaccinating...");  
    }  
  
    abstract void treating();  
}  
  
public class Test {  
    public static void main(String[] args) {  
        Animal.vaccinate();  
    }  
}
```

What will be the result of compiling and executing Test class?

- A - Compilation error in Animal class
- B - Vaccinating...
- C - Compilation error in Test class

Java Class Design - 9

Consider the code of Test.java file:

```
class Player {
    String name;
    int age;

    Player() {
        this.name = "Sachin";
        this.age = 44;
    }

    public Object toString() {
        return name + ", " + age;
    }
}

public class Test {
    public static void main(String[] args) {
        System.out.println(new Player());
    }
}
```

What will be the result of compiling and executing Test class?

- A - Compilation error
- B - null, 0
- C - Text containing @ symbol
- D - Sachin, 44

Java Class Design - 10

Consider the code of Test.java file:

```
package com.training.ocp;

class Player {
    String name;
    int age;

    Player() {
        this.name = "Virat";
        this.age = 29;
    }

    public int hashCode() {
        return 100;
    }
}

public class Test {
    public static void main(String[] args) {
        System.out.println(new Player());
    }
}
```

Hexadecimal representation of 100 is 64.

Which of the following option is correct?

- A - Code compiles successfully and on execution always prints "com.training.ocp.Player@64" on to the console
- B - Code compiles successfully but throws an exception on executing it
- C - None of the other options
- D - Code doesn't compile successfully

Java Class Design - 11

Consider the code of Test.java file:

```
class Player {  
    String name;  
    int age;  
  
    void Player() {  
        this.name = "Virat";  
        this.age = 29;  
    }  
  
    public String toString() {  
        return "Name: " + this.name + ", Age: " + this.age;  
    }  
}  
  
public class Test {  
    public static void main(String[] args) {  
        System.out.println(new Player());  
    }  
}
```

What will be the result of compiling and executing Test class?

- A - Name: Virat, Age: 29
- B - An exception is thrown at runtime
- C - Compilation error
- D - Name: null, Age: 0

Java Class Design - 12

Consider the code of Test.java file:

```
class Calculator {  
    public static void add(int x, int y) {  
        System.out.println("The sum is: " + x + y);  
    }  
}  
  
public class Test {  
    public static void main(String[] args) {  
        Calculator.add(15, 25);  
    }  
}
```

What will be the result of compiling and executing Test class?

- A - The sum is: 1525
- B - Compilation error
- C - The sum is: 40

Java Class Design - 13

Consider below code:

```
//Test.java
abstract class Animal {
    abstract void eat();
}

class Dog extends Animal {
    public void eat() {
        System.out.println("Dog eats biscuit.");
    }
}

class Cat extends Animal {
    public void eat() {
        System.out.println("Cat eats fish.");
    }
}

public class Test {
    public static void main(String[] args) {
        Animal [] animals = new Dog[2];
        animals[0] = new Dog();
        animals[1] = new Cat();

        animals[0].eat();
        animals[1].eat();
    }
}
```

What will be the result of compiling and executing Test class?

- A - Runtime exception
- B - Dog eats biscuit.
- C - Cat eats fish.
- D - None of the other options.
- E - Compilation error

Java Class Design - 14

Consider the code of Test.java file:

```
class Player {  
    String name;  
    int age;  
  
    Player() {  
        this.name = "Yuvraj";  
        this.age = 36;  
    }  
  
    protected String toString() {  
        return name + ", " + age;  
    }  
}  
  
public class Test {  
    public static void main(String[] args) {  
        System.out.println(new Player());  
    }  
}
```

What will be the result of compiling and executing Test class?

- A - Yuvraj, 36
- B - null, 0
- C - Text containing @ symbol
- D - Compilation error

Java Class Design - 15

Consider below code:

```
class Animal {  
    void eat() {  
        System.out.println("Animal is eating.");  
    }  
}  
  
class Dog extends Animal {  
    public void eat() {  
        System.out.println("Dog is eating biscuit.");  
    }  
}  
  
public class Test {  
    public static void main(String[] args) {  
        Animal [] animals = new Dog[2];  
        animals[0] = new Animal();  
        animals[1] = new Dog();  
  
        animals[0].eat();  
        animals[1].eat();  
    }  
}
```

What will be the result of compiling and executing Test class?

A -

Animal is eating.
Animal is eating.

B -

Animal is eating.
Dog is eating biscuit.

C - Compilation error

D - Runtime exception

Java Class Design - 16

Consider the code of Test.java file:

```
abstract class Animal {  
    public static void vaccinate() {  
        System.out.println("Vaccinating...");  
    }  
  
    private abstract void treating();  
}  
  
public class Test {  
    public static void main(String[] args) {  
        Animal.vaccinate();  
    }  
}
```

What will be the result of compiling and executing Test class?

- A - Compilation error in Test class
- B - Compilation error in Animal class
- C - Vaccinating...