Rajalakshmi Engineering College

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2024_28_III_OOPS Using Java Lab

REC_2028_OOPS using Java_Week 7_MCQ

Attempt : 1
Total Mark : 15
Marks Obtained : 10

Section 1 : MCQ

1. Consider a class implementing an interface and extending a class, both having a method with the same name. Which method gets called?

Answer

The method from the superclass

Status : Correct   *Marks : 1/1*

2. What is the primary purpose of static methods in Java interfaces?

Answer

They allow an interface to provide helper methods without requiring an implementing class.

Status : Correct   *Marks : 1/1*

3. What is the output of the following code?

```java
interface X {
    default void show() {
        System.out.println("X's Default Method");
    }
}

interface Y {
    default void show() {
        System.out.println("Y's Default Method");
    }
}

class Z implements X, Y {
    public void show() {
        System.out.println("Z's Method");
    }
}

public class Main {
    public static void main(String[] args) {
        Z obj = new Z();
        obj.show();
    }
}
```

Answer

Z's Method

Status : Correct   *Marks : 1/1*

4. Which of the following statements is true regarding default methods in Java interfaces?

Answer

A default method can be overridden in a class implementing the interface.

Status : Correct   *Marks : 1/1*

5.   What is the output of the following code?

```java
interface A {
    default void show() {
        System.out.println("A's Default Method");
    }
}

class B {
    public void show() {
        System.out.println("B's Method");
    }
}

class C extends B implements A {
}

public class Main {
    public static void main(String[] args) {
        C obj = new C();
        obj.show();
    }
}
```

Answer

Compilation Error

Status : Wrong   **Marks : 0/1**

6.   If a class implements two interfaces that have the same default method, what must the class do?

Answer

The class must override the method to resolve ambiguity.

Status : Correct   **Marks : 1/1**

7.   Which of the following statements about Java interfaces is true?

Answer

A class can implement multiple interfaces.

Status : Correct   *Marks : 1/1*

8. What is the output of the following code?

```
interface A {
    default void show() {
        System.out.println("A's Default Method");
    }
}

interface B {
    default void show() {
        System.out.println("B's Default Method");
    }
}

class C implements A, B {
    public void show() {
        A.super.show();
    }
}

public class Main {
    public static void main(String[] args) {
        C obj = new C();
        obj.show();
    }
}
```

Answer

Compilation Error

Status : Wrong   *Marks : 0/1*

9. What is the output of the following code?

```java
interface MathOperations {
    static int square(int x) {
        return x * x;
    }
}

public class Main {
    public static void main(String[] args) {
        System.out.println(MathOperations.square(5));
    }
}
```

Answer

Compilation error

Status : Wrong   **Marks : 0/1**

10. What is the output of the following code?

```java
interface A {
    static void display() {
        System.out.println("Static method in A");
    }
}

class B implements A {
    static void display() {
        System.out.println("Static method in B");
    }
}

public class Main {
    public static void main(String[] args) {
        B.display();
    }
}
```

Answer

Compilation Error

11.   Can a Java interface contain both default and static methods?

Answer

Yes, an interface can have both default and static methods.

Status : Correct   *Marks : 1/1*

12.   Which of the following is the correct way to declare an interface in Java?

Answer

public interface Vehicle { public void start() {};}

Status : Wrong   *Marks : 0/1*

13.   How can a class explicitly call a default method from an interface if there is a naming conflict?

Answer

Using InterfaceName.super.methodName();

Status : Correct   *Marks : 1/1*

14.   What happens when an implementing class does not override a default method from an interface?

Answer

The default method's implementation from the interface will be used.

Status : Correct   *Marks : 1/1*

15.   How do you call a static method from an interface MyInterface?

Answer

```
MyInterface.staticMethod();
```

Status : Correct   **Marks : 1/1**