

Rajalakshmi Engineering College

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Department: AI & ML - Section 1

Batch: 2028

Degree: B.E - AI & ML

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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 : 9

Section 1 : MCQ

1. 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

2. What is the output of the following code?

```
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

25

Status : Correct

Marks : 1/1

3. 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

A's Default Method

Status : Correct

Marks : 1/1

4. 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

5. 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

6. What is the output of the following code?

```
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

Static method in A

Status : Wrong

Marks : 0/1

7. What is the output of the following code?

```
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

A's Default Method

Status : Wrong

Marks : 0/1

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

Answer

A class can implement multiple interfaces.

Status : Correct

Marks : 1/1

9. 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 interface is called, but only if it is declared as static

Status : Wrong

Marks : 0/1

10. 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

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

Answer

obj.staticMethod(); (where obj is an instance of a class implementing MyInterface)

Status : Wrong

Marks : 0/1

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

Answer

class Vehicle { void start();}

Status : Wrong

Marks : 0/1

13. 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

14. What is the output of the following code?

```
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

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

Answer

Using InterfaceName.methodName();

Status : Wrong

Marks : 0/1