

1) What would be the output and why ?

(6)

(i) `class MyClass { MyClass(int x) { System.out.println(x); } }`

`public class Test {  
 public static void main(String[] args)  
 { int x=5; MyClass obj = new MyClass (0); }`

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

(iii) `public class Test { public static void main(String[] args) { int i = System.out.println(i); } }`

(iv) `public class Test { public static void main(String[] args) { try { throw new Exception("An error occurred"); } finally { System.out.println("finally block executed"); } } }`

(v) If you define a package named `com.example.utility` and have a class `Utility` inside it. What is the correct way to import and use the `Utility` class in another class that resides in a different package? Explain what would happen if you forget to import the package.

(vi) Difference between `throw` and `throws` keyword.

2) What are anonymous arrays? How do they differ from regular arrays? Illustrate with an example. (3)

3) Provide a brief example to illustrate how static members can be shared across instances while instance members maintain their own state. (3)

4) Provide a real-world scenario where a checked exception might be used in a Java application. Explain how failing to handle this exception could impact the application. (3)