

Department of Computer Science and Engineering

Object Oriented Programming Through Java (25CS303)

Worksheet

UNIT-3: INTERFACES, PACKAGES, EXCEPTIONS

A. Multiple Choice Questions

1. Which keyword is used to declare an interface in Java?

- A) class
- B) interface
- C) implements
- D) package

Answer: B

2. A class implements an interface using which keyword?

- A) extends
- B) implements
- C) import
- D) interface

Answer: B

3. Which keyword is used to create a package in Java?

- A) package
- B) import
- C) include
- D) namespace

Answer: A

4. Which keyword is used to bring existing packages into a Java file?

- A) package
- B) import
- C) include
- D) using

Answer: B

5. Which statement is true regarding interfaces?

- A) An interface can have constructors
- B) A class can implement multiple interfaces
- C) Interface methods are private by default
- D) Interfaces can be instantiated directly using new

Answer: B

6. Which access modifier makes a member accessible only within its own package and subclasses?

- A) public
- B) private
- C) protected
- D) default (no modifier)

Answer: C

7. Which block is used to enclose code that might throw an exception?

- A) catch
- B) try
- C) finally
- D) throw

Answer: B

8. Which block is always executed, regardless of whether an exception occurs or not?

- A) try

B) catch

C) finally

D) throws

Answer: C

9. Which keyword is used to explicitly throw an exception object?

A) throw

B) throws

C) catch

D) try

Answer: A

10. Which keyword is used in a method signature to declare the exceptions it might raise?

A) throw

B) throws

C) exception

D) try

Answer: B

11. To create a custom user-defined exception, a class must extend which superclass?

A) Object

B) System

C) Exception

D) Error

Answer: C

12. The java.io package primarily contains classes used for:

A) GUI creation

B) Input and Output stream operations

C) Network protocols

D) Data structures

Answer: B

13. The java.util package contains classes like:

A) File

B) Scanner

C) Thread

D) Exception

Answer: B

14. Interfaces can extend other interfaces using which keyword?

A) implements

B) extends

C) inherits

D) super

Answer: B

15. What happens if an exception is raised inside a try block but not caught by any matching catch block?

A) The program continues running normally

B) The finally block is skipped

C) The program terminates abnormally after executing the finally block

D) Compilation error occurs

Answer: C

B. Fill in the Blanks

1. An interface is declared using the **interface** keyword.
2. A single class can implement **multiple** interfaces, achieving multiple inheritance in Java.
3. All variables declared in an interface are implicitly **public, static, and final**.
4. Unlike abstract classes, interfaces cannot contain **constructors**.
5. The **package** statement must be the first non-comment statement in a Java source file.
6. The **import** keyword is used to access classes and interfaces defined in other packages.

7. Members with **protected** access protection are accessible within the same package and by subclasses in other packages.
8. File and stream operations in Java are provided by the java.io package.
9. Utility classes like data collections and date tools belong to the java.util package.
10. The **try** block contains statements that might throw an exception.
11. The **catch** block handles specific exceptions thrown by the associated try block.
12. The **finally** block executes cleanup code whether an exception occurs or not.
13. The **throw** keyword is used inside a method to throw an exception explicitly.
14. The **throws** keyword is used in a method declaration to list exceptions that the method might throw.
15. User-defined exceptions are created by deriving a custom class from the **Exception** class.