**MCQS – There could be multiple options as answers Time 10mins (10 Marks)**

1. Which component is used to compile, debug and execute the java programs?  
   a) JRE  
   b) JIT  
   c) JDK  
   d) JVM

**Answer: JDK**

**2**. What is the output of the following code snippet?

int x = 5;

int y = 10;

System.out.println(x + y + "Hello");

System.out.println("Hello"+x + y);

a) 510Hello Hello510  
b) 15Hello Hello15  
c) 15Hello Hello510  
d) 510Hello Hello15

**Answer: 15Hello Hello15**

**3**. What is the purpose of the Records feature introduced in Java 14?

a) Define immutable data classes with concise syntax

b) Provide access modifiers for class fields

c) Enhance exception handling mechanisms

d) Improve performance of String operations

**Answer: Define immutable data classes with concise syntax**

**4**. Which statement is true about Sealed Classes introduced in Java 15?

a) Enforce complete inheritance hierarchies for abstract classes.

b) Provide a mechanism for multiple inheritance.

c) Simplify interface implementation with default methods.

d) Improve performance of object creation

**Answer: Enforce complete inheritance hierarchies for abstract classes.**

**5**. What does the switch expression in Java 17 offer compared to the traditional switch statement?

a) Enhanced performance for switch statements

b) Ability to use expressions as case labels

c) Support for pattern matching

d) Introduction of a new break keyword

**Answer: Support for pattern matching**

**6**. Which of the following is NOT a benefit of using Lambda Expressions?

a) Improved code readability

b) Easier implementation of functional programming concepts

c) Reduced boilerplate code

d) Automatic memory management

**Answer: Automatic memory management**

**7**. What is the difference between method overloading and method overriding in Java?

a) Overloading occurs within a class, overriding between classes.

b) Overloading uses different parameter types, overriding uses the same.

c) Overloading is static binding, overriding is dynamic binding.

d) Both are the same concept with different names.

**Answer: Overloading uses different parameter types, overriding uses the same.**

**8**. Which access modifier restricts access to a class member within the same package?

a) Public

b) Private (Correct)

c) Protected

d) Default

**Answer: Private**

**9**. How can you provide a default value if no value is present within an Optional object?

a) Use a conditional statement with isPresent()

b) Call the orElse() method with a default value as an argument.

c) Optional class doesn't offer functionality for default values.

**Answer: Call the orElse() method with a default value as an argument**

**10**.Can a class inherit from multiple superclasses directly in Java?

a) Yes, this is called multiple inheritance.

b) Yes, but only if the superclasses are unrelated.

c) No, Java only allows single inheritance.

d) Inheritance is not allowed in Java.

**Answer: No, Java only allows single inheritance.**