SILVER OAK UNIVERSITY
EDUCATION TO INNOVATION

Silver Oak College of Computer Application
Department of Computer Science
Bachelor Computer Science (CS/IT)
Subject Name: Java Programming
Subject Code: 3040243201
Semester: III

MID SEM EXAM QUESTIONS BANK

Q.1.	Explain in detail the definitions and roles of JVM, JDK, Byte Code, and JRE in the context of Java programming.
Q.2.	What is Java? Why is it called a platform-independent language?
Q.3.	Define the Six Object-Oriented Programming (OOP) Concepts and explain each with examples.
Q.4.	Discuss the different data types available in Java and their uses.
Q.5.	Discuss some key features of Java that differentiate it from other programming languages.
Q.6.	Provide definitions for the terms identifier and literals in the context of Java programming.
Q.7.	What is meaning of Public Static Void Main.
Q.8.	Describe the concept of type conversion and casting in Java. Provide examples.
Q.9.	Describe the fundamental structure of a Java Program.
Q.10.	Illustrate various types of operators in Java with examples.
Q.11.	Highlight some key differences between Java and C++.
Q.12.	Discuss the importance of variables in Java and explain different types of variables.
Q.13.	What is Java? Why is it called a platform-independent language?
Q.14.	Explain the syntax for declaring a class in Java. What is the significance of access modifiers in class declaration?
Q.15.	How do you create a class and objects in Java? Provide an example.
Q.16.	What are identifiers in Java? Provide examples of valid and invalid identifiers.
Q.17.	Explain the syntax and usage of the IF, IF...Else and IF...Else..IF statements. in Java with an example.
Q.18.	How do you use nested IF statements in Java? Provide an example.
Q.19.	Describe the syntax and use of the Switch Case statement in Java. Provide an example.
Q.20.	Explain the syntax and usage of the While loop & Do While loop in Java with an example.

Q.21.	Describe the syntax and usage of the For loop in Java with an example.
Q.22.	What is an array in Java? Provide an example of declaring and initializing a one-dimensional array& two-dimensional array in Java.
Q.23.	How do you pass arrays to methods in Java? Provide an example.
Q.24.	Describe the methods of the Arrays class in Java (fill(), sort(), equal(), binary search). Provide examples of each.
Q.25.	Explain the concept of class variables and class methods in Java. How are they different from instance variables and methods?
Q.26.	Classify the variables declared in a class (local variable, instance variable, class variable). Provide examples.
Q.27.	Describe the visibility modifiers for access control in Java (public, private, protected). How are they used?
Q.28.	What is the instance operator in Java? Provide an example of its usage.
Q.29.	Explain the role of the Garbage collector in Java.
Q.30.	What are static methods and static variables in Java? Provide examples.
Q.31.	What is Constructor? Explain different types of constructors with example.
Q.32.	What is inheritance in Java? How does it help in code reusability?
Q.33.	Explain the concept of Super class and Sub class in inheritance.
Q.34.	What is method overloading? Provide an example demonstrating method overloading in Java.
Q.35.	What is method overriding? How does it differ from method overloading? Provide an example
Q.36.	What is Inheritance? Explain types of inheritance with example.
Q.37.	What is the purpose of the Final keyword in Java? How is it used with variables, methods, and classes?
Q.38.	Discuss the purpose and usage of the this keyword in Java. Provide examples illustrating its use.
Q.39.	Explain the usage of the super keyword in Java. Provide examples demonstrating its use in constructors and method calls.
Q.40.	What is an interface in Java? How does it differ from a class? Provide an example of declaring and implementing an interface.
Q.41.	What is an abstract class in Java? How is it different from a regular class? Provide an example of an abstract class.
Q.42.	Give difference between Abstract class and Interface.
Q.43.	Explain String and String buffer class.
Q.44.	Define user-defined packages in detail.
Q.45.	Types of packages in Java with detail.