

### QUESTION BANK

**Programme : B.Tech**  
**Course : Advanced Java Programming**

**Programme : Winter Inter-II 2022-23**  
**Course : CSE4019**

S. No	Questions
<b>Unit-1</b>	
1.	Summarize the Java buzzwords and four editions of Java with suitable example.
2.	Summarize the Java JVM, JRE and JDK with suitable example.
3.	Write a java program to define a class student with data members like name, rollno, age, gender, sub1, and sub2. Defines appropriate methods to initialize and displays the values of data members also calculates total marks, percentage and grade by the 'n' number of students. Note: get the values at run time with corresponding objects. Write the sample output with all the operations.
4.	Implement the calculator operation using Interface. Create an Interface named arithmetic has declared methods add, sub, mul, div and mod with their method signature as access modifier is public by default, void return type and two int / float arguments as their parameters. Write the sample output with all the above operations.
5.	Write a java program for employee details using class and Encapsulation to get empid, name, salary, PF and HRA. Find total salary for 'n' employees. Get the values at run time with corresponding objects. Write the sample output with all the operations.
6.	Write a java program for area calculation (circle, square, rectangle, cone and triangle) using classes and methods with switch statements.
7.	Implement the Fibonacci Series using recursion with for loop in java.
8.	Write a java program to check whether number is palindrome or not using while, if and else statements.
9.	Write a program to Find whether number is Prime or Not using for loop.
10.	Write a java program for bank details using multilevel inheritance for the variables such as to get accno, name, age, gender, acctype, total and display the balance, withdraw, deposit and annual interest.
11.	Write a java program for Library details using Interface for the data members like book_name, book_title, acctype, date and bal. Next to calculate the return date and fine amount if any, to display all the details.
12.	Write a java program for simple interest calculation using interface.
13.	Write a java program to implement the arithmetic operations using inheritance.
14.	Write a java program to find square root of a number without sqrt method.
15.	Implement the stack operations using Interfaces with 10 different values to get in run time.
16.	Implement the matrix addition, subtraction and multiplication using Arrays.
17.	Create a package for Library details like book search, book info, submission date and display with different classes.
18.	Summarize the types of Inheritance with different examples for each type.
19.	Describe the Exception Handling operations with example.
20.	Demonstrate the need for object Serialization and De-serialization.
21.	Classify the Types of Exceptions and its Java Exception Keywords with suitable example.
22.	Discuss the Common Scenarios of Java Exceptions with suitable example.
23.	Summarize the Java Built-in Exceptions with suitable example.
24.	Demonstrate with diagram for Thread Life Cycle model and its Life Cycle methods with suitable example.
25.	Classify how many ways to create a thread. Write all the types with suitable example with output.

**Unit-2**

1.	Implement Event Handling operations using the classes like ActionListener, MouseListener and MouseMotionListener.
2.	Identify the GUI features and Technology in details.
3.	List and explain the need for Java Foundation Classes (JFC) with suitable example.
4.	Describe the Common Elements of Graphical User Interfaces in details with neat diagram.
5.	Create a student marks card using Java Bean class.
6.	Create a new Bean class for any applications using BDK.
7.	Describes the JFC architecture with neat diagram in details.

**Unit-3**

1.	Identify the need for Database Applications with JDBC Layout.
2.	Summarize with neat sketch for Relational Database in details.
3.	Describe the best practices for programming for Databases in details.
4.	Classify the types of JDBC drivers with neat diagram and advantages and disadvantages of each driver.
5.	Implement the steps to connect Ms-Access database using JDBC driver with example and output.
6.	List and explain the SQL to Java Type Mapping in details.
7.	Implement to display Date & Time using SQL Data Types.
8.	Describe the need for java.sql API package in details.
9.	Identify the need Coding Transactions in database. Classify the important functions in Transaction Management in details.
10.	Explain with neat sketch for class hierarchy of the javax.sql API package.
11.	Describe with neat sketch for Connection Pooling Architecture in details.