

Satyug Darshan Institute of Engineering & Technology, Faridabad

Department of Computer Science

Academic year 2025-26

Programme: BCA DS	Year & Semester: 1st Year & 2nd Sem
Course Name: Java Programming	Course Code: BCG-108-VI
Prepared by: Sangeeta	

Unit–1

Short Answer Questions

S. No.	Question	Bloom Level
1	Define Java and list any four features of Java.	L1
2	Explain the concept of JVM and its role in Java execution.	L2
3	List the primitive data types available in Java.	L1
4	Explain the concept of platform independence in Java.	L2
5	State the syntax for declaring a one-dimensional array in Java.	L1
6	Differentiate between == operator and .equals () method in Java.	L2

Long Answer Questions

S. No.	Question	Bloom Level
1	Explain the architecture of JVM with a neat labeled diagram.	L2
2	Explain different Java operators and expressions with suitable examples.	L2
3	Develop a Java program to perform basic operations on arrays.	L3
4	Compare Java and C++ highlighting key differences.	L4
5	Explain the Java program execution process step by step.	L2

Unit–2

Short Answer Questions

S. No.	Question	Bloom Level
1	Define class and object in Java.	L1
2	Define constructor in Java.	L1
3	Define inheritance.	L1
4	Explain polymorphism in Java.	L2
5	Define abstract class.	L1
6	Explain the use of the static keyword in Java.	L2

Long Answer Questions

S. No.	Question	Bloom Level
1	Explain the types of inheritance supported in Java with examples.	L2
2	Develop and explain a Java program demonstrating constructor overloading.	L3
3	Differentiate between abstract class and interface.	L4
4	Develop a Java program to demonstrate runtime polymorphism.	L3
5	Explain Java packages and their advantages.	L2

Unit–3

Short Answer Questions

S. No.	Question	Bloom Level
1	Define exception in Java.	L1
2	Differentiate between checked and unchecked exceptions.	L2
3	Explain the purpose of <code>throw</code> and <code>throws</code> keywords.	L2
4	Define thread in Java.	L1
5	List different states of the thread life cycle.	L1
6	Explain synchronization in Java.	L2

Long Answer Questions

S. No.	Question	Bloom Level
1	Explain the exception handling mechanism in Java.	L2
2	Demonstrate the use of multiple <code>catch</code> blocks using a Java program.	L3
3	Explain the thread life cycle with a neat diagram.	L2
4	Differentiate between the Thread class and Runnable interface.	L4
5	Explain the producer–consumer problem using synchronization.	L4

Unit–4

Short Answer Questions

S. No.	Question	Bloom Level
1	Define stream in Java.	L1
2	Differentiate between byte stream and character stream.	L2
3	List the predefined streams in Java.	L1

4	Explain file handling in Java.	L2
5	Define serialization.	L1

Long Answer Questions

S. No.	Question	Bloom Level
1	Explain the Java I/O stream hierarchy with diagram.	L2
2	Develop a Java program to read and write data into a file.	L3
3	Explain console input and output operations in Java.	L2
4	Explain object serialization and deserialization with example.	L2
5	Discuss advantages of serialization in real-world applications.	L4