

Sixth Semester B.E./B.Tech. Degree Examination, June/July 2025**Advanced Java**

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choose ONE full question from each module.**2. M: Marks, L: Bloom's Level, C: Course Outcomes.*

QUESTIONS			M	L	C
MODULE 1					
Q.1	a.	What is collection framework? Explain the methods defined by the following interfaces: i) Collection ii) List iii) Navigable Set iv) Queues.	10	L2	CO1
	b.	Define a Comparator. Mention the methods provided by the Comparator interface. Illustrate its use with a program that demonstrates sorting elements in a TreeSet in reverse order.	5	L3	CO1
	c.	Discuss the various methods provided by the Array class in Java. Illustrate the usage of these methods with a suitable example program.	5	L3	CO1
OR					
Q.2	a.	What are legacy classes? Explain any four legacy classes of java's collection framework with suitable programs.	10	L2	CO1
	b.	Describe the concept of Spliterators in Java. Enumerate the key methods provided by the Spliterator interface. Illustrate the usage of Spliterators with a suitable example.	10	L3	CO1
MODULE 2					
Q.3	a.	Illustrate the use of StringBuffer methods: append(), insert(), reverse(), and delete() with proper examples	10	L3	CO2
	b.	Describe all the string comparison methods available in java with examples.	5	L2	CO2
	c.	Differentiate between String, StringBuffer, and StringBuilder classes with focus on mutability, performance, and thread safety.	5	L4	CO2
OR					
Q.4	a.	Discuss various overloaded constructors of the String class with suitable code examples. Explain the behavior of each.	10	L3	CO2
	b.	Demonstrate the usage of the string modification methods in java with an example each.	5	L3	CO2
	5.	Explain the usage of indexOf () and lastIndexOf () methods with one example each.	5	L3	CO2
MODULE 3					
Q.5	a.	Discuss the functionality of the four commonly used buttons in Java Swing. Illustrate each with a suitable example.	10	L3	CO3
	b.	Describe the MVC Connection. How is this design pattern implemented in Java Swing applications?	5	L2	CO3
	c.	Elaborate the concept of painting in Java Swing. Illustrate your explanation with a suitable example program.	5	L3	CO3
OR					
Q.6	a.	What is Java Swing? Discuss the evolution of Java Swing and explain its key features.	10	L2	CO3
	b.	Explain the following swing components with an example program: i)JLabel ii)JTextField iii) JScrollPane iv) JTable	10	L3	CO3
MODULE 4					
Q.7	a.	Define JSP and explain the following: i) Tags ii) Variables iii) Objects	10	L2	CO4
	b.	Explain the lifecycle of servlet with an example.	5	L3	CO4
	c.	Elaborate on session tracking with an example	5	L3	CO4
OR					
Q.8	a.	Describe all the interface and classes present in the jakarta.servlet Package	10	L2	CO4
	b.	Explain any 2 cookie methods and elaborate on how cookies can be handled in servlets.	10	L3	CO4
MODULE 5					
Q.9	a.	Elaborate on the concepts of JDBC and discuss the types of JDBC drivers.	8	L2	CO5

	b.	Explain the steps involved in associating the JDBC-ODBC bridge with a database using the ODBC Data Source Administrator	12	L2	CO5
OR					
Q.10	a.	Give a brief overview on how JDBC process.	10	L2	CO5
	b.	Discuss the following with respect to JDBC i) Metadata ii) ResultSet Metadata iii) Data Types iv) Exceptions	10	L2	CO5
