

CBCS SCHEME

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BIS402

Fourth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026 Advanced Java

Time: 3 hrs.

Max. Marks: 100

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

Module – 1			M	L	C
Q.1	a.	Define Framework. List the need for a separate collection framework in Java and draw the hierarchy of the collection framework.	8	L1	CO1
	b.	Write the advantages of Java collections framework.	4	L1	CO1
	c.	Explain Hashset using Add() function, remove() function and size() function with programming example.	8	L2	CO1
OR					
Q.2	a.	What is Collection Framework? List the methods defined by the collection interface.	8	L1	CO1
	b.	Name the constructors of the tree set class, and write a Java program to create a tree set collection.	6	L1	CO1
	c.	Explain any 2 legacy classes in Java's collection framework.	6	L2	CO1
Module – 2					
Q.3	a.	Define string Handling and its class. Explain any three string constructors.	8	L1	CO2
	b.	Differentiate between equals() and == with respect to string comparison.	6	L2	CO2
	c.	Explain any two character extraction methods of string class.	6	L2	CO2
OR					
Q.4	a.	Explain the following methods of string Buffer class. i) append() ii) insert() iii) reverse() iv) replace().	10	L2	CO2
	b.	Demonstrate about the changing the case of characters with programming example.	6	L2	CO2
	c.	Define string buffer. Explain types of string buffer.	4	L2	CO2

Module – 3

Q.5	a.	Define Swing. Explain the origin of swing and mention the limitation of AWT.	6	L1	CO3
	b.	Explain swing packages in detail.	4	L2	CO3
	c.	Write a java program to create a simple swing application.	10	L3	CO3

OR

Q.6	a.	Compare java Awt and swing.	6	L2	CO3
	b.	Explain the following : i. Text controls ii. JTextarea iii. JTextField iv. JPasswordField.	4	L2	CO3
	c.	Write a suitable program using JFrame class, constructor and method.	10	L3	CO3

Module – 4

Q.7	a.	Construct the life cycle of servlets in detail.	10	L3	CO4
	b.	Write a Java servlet program to demonstrate how parameters are accessed from HTML.	10	L4	CO4

OR

Q.8	a.	List the different types of JSP tags with example.	10	L3	CO4
	b.	What is a Cookie? List out methods defined by cookie and write a java program to add a cookie.	10	L4	CO4

Module – 5

Q.9	a.	Write a program to execute a database transaction.	10	L4	CO5
	b.	Explain JDBC multitier architecture with neat diagram i.e drivers types in detail.	10	L3	CO5

OR

Q.10	a.	List the various steps of JDBC process with code snippets.	10	L4	CO5
	b.	Write a note on Database Metadata object methods and Resultset Metadata object methods.	10	L3	CO5
