

CBCS SCHEME

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BIS402

Fourth 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, 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.	What is Collection Framework? Explain the methods define by the collection interface.	7	L2	CO1
	b.	Demonstrate ArrayList class collection with example.	7	L2	CO1
	c.	Explain how collections can be accessed using an iterator with example.	6	L2	CO1
OR					
Q.2	a.	Explain the following map classes: i) HashMap ii) TreeMap.	10	L2	CO1
	b.	What are comparators? Write a comparator program to sort accounts by last name.	10	L3	CO1
Module – 2					
Q.3	a.	Explain the string comparison functions with suitable program.	6	L2	CO2
	b.	Explain the following built in methods with respect to StringBuffer class: i) capacity() ii) delete() iii) replace() iv) append() v) substring()	7	L2	CO2
	c.	Write a Java program that demonstrates any four constructors of string class.	7	L3	CO2
OR					
Q.4	a.	Write a Java program to remove duplicate characters from a given string and display the resultant string.	7	L3	CO3
	b.	Explain character extraction functions in string class.	7	L2	CO2
	c.	Explain constructors in Java string builder class.	6	L2	CO2

Module – 3

Q.5	a.	Explain the difference between AWT and Swing. What are two key features of swing and explain.	6	L2	CO3
	b.	What is JLabel class? Explain with example of any three constructors and methods of JLabel class.	7	L2	CO3
	c.	Write a Java program in swing event handling applications that creates 2 buttons ALPHA and BETA and displays the text “Alpha pressed” when Alpha button is clicked and “Beta pressed” when beta button is clicked.	7	L3	CO3

OR

Q.6	a.	What is JPanel class? Explain the constructors of Jpanel class and give a suitable example.	6	L2	CO3
	b.	What is JCheckBox class? Explain the constructors of JCheckBox class and give a suitable example.	7	L2	CO3
	c.	What is JFrame class? Explain constructors and methods of JFrame class.	7	L2	CO3

Module – 4

Q.7	a.	Explain the life cycle of servlet.	6	L2	CO4
	b.	Write a Java servlet program to display the name, USN and total marks by accepting student detail.	7	L3	CO4
	c.	Describe the core interfaces that are provided in javax.Servlet.http package.	7	L3	CO4

OR

Q.8	a.	What is JSP? Explain the various types of JSP tags with example.	10	L2	CO4
	b.	What are cookies? How cookies are handled in JSP? Write a JSP program to create and read a cookie.	10	L2	CO4

Module – 5

Q.9	a.	What are database drivers? Explain the different JDBC driver types.	10	L2	CO5
	b.	Describe the various steps of JDBC with code snippets.	10	L2	CO5

OR

Q.10	a.	Write any two syntax of established a connection to a database.	6	L2	CO5
	b.	What is connection pooling? Explain connection pooling with a neat diagram with snippets.	7	L2	CO5
	c.	Describe the following concepts: i) Callable statement ii) Transaction processing.	7	L2	CO5
