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CBCS SCHEME

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BCS613D

Sixth Semester B.E./B.Tech. Degree Examination, June/July 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.	What is collection framework? Explain the methods defined by collection interface.	8	L1	CO1
	b.	Explain accessing collection via an Iterator and random access interface.	7	L2	CO1
	c.	Discuss user defined classes in collection.	5	L1	CO1
		OR			
Q.2	a.	Elaborate the concepts of maps and comparators in Java.	8	L2	CO1
	b.	Discuss various collection algorithms.	6	L1	CO1
	c.	What is an Interface? Explain various legacy classes.	6	L1	CO1
		Module – 2			
Q.3	a.	With a program explain string constructors.	8	L1	CO2
	b.	Write a program to demonstrate string buffer and string builder.	8	L2	CO2
	c.	Discuss string comparison methods with examples.	4	L1	CO2
		OR			
Q.4	a.	Write a program to demonstrate various string operations.	8	L2	CO2
	b.	Explain data conversion using valueOf( ) and write a program for changing case of characters in a string.	8	L2	CO2
	c.	Discuss character extraction methods in string.	4	L1	CO2
		Module – 3			
Q.5	a.	What is Swing? Explain two key swing features.	7	L1	CO3
	b.	Elaborate the concept of MVC connection in swings.	3	L2	CO3
	c.	Explain components, containers and swing packages.	10	L1	CO3

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		OR			
Q.6	**a.**	Discuss event handling and painting in swing.	**8**	**L1**	**CO3**
	b.	Explain the following: i) JLabel and Image Icon ii) JTextField iii) JToggleButton iv) Radio Buttons	**12**	**L1**	**CO3**
		Module – 4			
Q.7	**a.**	What is Servlet? Explain servlet life cycle.	**7**	**L1**	**CO4**
	b.	Discuss the importance of servlet API. Explain servlet packages.	**7**	**L1**	**CO4**
	c.	With a program, demonstrate reading servlet parameters.	**6**	**L2**	**CO4**
		OR			
Q.8	**a.**	Write a program for handling HTTP requests and responses.	**7**	**L2**	**CO4**
	b.	Explain various JSP tags.	**8**	**L1**	**CO4**
	c.	Discuss user sessions and cookies in servlet.	**5**	**L1**	**CO4**
		Module – 5			
Q.9	**a.**	Why we use JDBC? Explain various steps of JDBC process.	**10**	**L1**	**CO5**
	b.	Explain JDBC packages and statement objects.	**10**	**L1**	**CO5**
		OR			
Q.10	**a.**	With a diagram, explain JDBC driver types.	**10**	**L1**	**CO5**
	b.	Explain the following concepts in JDBC: i) Transaction processing ii) Result set and metadata iii) Data types	**10**	**L1**	**CO5**

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