CBCS SCHEME

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BCS613D

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, 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 a collection framework? Explain the methods defined by collection interface.	10	L2	CO1
	b.	Develop a java program to create an ArrayList of objects of type string. Add any five strings, display size and contents of list. Remove any two strings and display size and contents.	10	L3	CO1
		OR			
Q.2	a.	Explain the constructors of tree set class and develop a java program to create Treeset collection and access it via an iterator.	10	L3	CO1
	b.	Explain any four legacy classes of Java's collection framework.	10	L2	CO1
		Module – 2			
Q.3	a.	What is string in Java? Illustrate java program that demonstrates any four constructors of string class.	10	L2	CO2
	b.	Compare between equals( ) and = = with respect to string comparison.	4	L2	CO2
	c.	Explain the following character extraction methods : i) charAt( ) ii) getChars( ) iii) toCharArray( )	6	L2	CO2
		OR			
Q.4	a.	Explain any four string modification methods of string class.	10	L2	CO2
	b.	Explain the following methods of string buffer class: i) append( ) ii) insert( ) iii) reverse( ) iv) replace( )	10	L2	CO2
		Module – 3			
Q.5	a.	Explain the key features of swing and also develop the program.	10	L3	CO3
	b.	Build a program to demonstrate an icon-based button. Each button displays an icon that represents the flag of a country. When a button is pressed, the name of that country is displayed in the label.	10	L3	CO3
		OR			
Q.6	a.	Explain the event handling mechanism used by swing and also develop the program.	10	L3	CO3
	b.	Illustrate the use of radio buttons and also develop the program.	10	L3	CO3

		Module – 4			
Q.7	**a.**	List and explain the core classes and interfaces in javax.servlet package.	**10**	**L2**	**CO4**
	b.	Develop a java servlet program to accept two parameters from webpage, find the sum of them and display the result in the webpage. Also give necessary html script to create web page.	**10**	**L3**	**CO4**
		OR			
Q.8	**a.**	Define JSP. Explain different JSP tags with suitable example program.	**8**	**L2**	**CO4**
	b.	Explain the life cycle of a servlet.	**4**	**L2**	**CO4**
	c.	What is a cookie? Listout the methods defined by cookie. Develop a Java program to add a cookie.	**8**	**L3**	**CO4**
		Module – 5			
Q.9	**a.**	Explain four types of JDBC drivers.	**5**	**L2**	**CO5**
	b.	Construct a code snippet to describe the various steps involved in JDBC process.	**10**	**L3**	**CO5**
	c.	Explain database meta data and result set metadata.	**5**	**L2**	**CO5**
		OR			
Q.10	**a.**	What is statement object in JDBC? Explain the following statement objects: i) Callable statement object. ii) Prepared statement object.	**10**	**L2**	**CO5**
	b.	Develop a java program to execute a database transaction.	**6**	**L3**	**CO5**
	c.	Show any two syntax of establishing a connection to database.	**4**	**L2**	**CO5**

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