



USN

BIS402

## Fourth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025 Advance 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.	Implement a java program to demonstrate creating an ArrayList, adding elements, removing elements, sorting elements of ArrayList.	8	L4	CO1
	c.	Demonstrate with an example how accessing a collection Via an Iterator can be done.	5	L2	CO1
OR					
Q.2	a.	Explain the following map classes : (i) HashMap (ii) TreeMap.	8	L2	CO1
	b.	Explain ArrayList class and explain the following methods : (i) binarysearch (ii) Copy (iii) equals (iv) fill	8	L2	CO1
	c.	Explain legacy classes.	4	L2	CO1
Module – 2					
Q.3	a.	What is string in Java? Implement a Java program to illustrate the use of any four constructors of string class.	8	L3	CO2
	b.	Explain the following stringBuffer methods with an example : (i) insert (ii) append (iii) replace (iv) substring.	8	L2	CO2
	c.	Differentiate between equals ( ) and == with respect to string comparison.	4	L2	CO2
OR					
Q.4	a.	Explain the following string buffer class with examples : (i) Capacity (ii) Reverse (iii) CharAt ( ) (iv) deleteCharAt ( ).	8	L2	CO2
	b.	Implement a java program to remove duplicate characters from a given string and display the resultant string.	8	L3	CO2
	c.	How CompareTo ( ) method differs from CompareToIgnoreCase ( ) method?	4	L2	CO2
Module – 3					
Q.5	a.	What are differences between swing and AWT? Why Swing components are called light weight component?	8	L2	CO3
	b.	Explain the following with suitable code : JButton, JLabel, JTextField, JComboBox.	12	L2	CO3
OR					
Q.6	a.	Explain the paint package in swings.	6	L2	CO3

	<b>b.</b>	Create a swing application having two buttons named alpha and beta. When either of buttons pressed, it should display “alpha pressed” and “beta pressed” respectively.	<b>10</b>	<b>L4</b>	<b>CO3</b>
	<b>c.</b>	Write short note on MVC connection.	<b>4</b>	<b>L2</b>	<b>CO3</b>
<b>Module – 4</b>					
<b>Q.7</b>	<b>a.</b>	Explain the life cycle of Servlet.	<b>4</b>	<b>L2</b>	<b>CO4</b>
	<b>b.</b>	Describe the core interfaces that are provided in Javax, Servlet, http package.	<b>8</b>	<b>L2</b>	<b>CO4</b>
	<b>c.</b>	Implement a Servlet program to display the name, USN and total marks by accepting student detail.	<b>8</b>	<b>L3</b>	<b>CO4</b>
<b>OR</b>					
<b>Q.8</b>	<b>a.</b>	What is JSP? Explain the various types of JSPtags with examples.	<b>10</b>	<b>L2</b>	<b>CO4</b>
	<b>b.</b>	What are cookies? How cookies are handled in JSP? Write a JSP program to create and read cookie.	<b>10</b>	<b>L3</b>	<b>CO4</b>
<b>Module – 5</b>					
<b>Q.9</b>	<b>a.</b>	What are database drives? Explain the different JDBC driver types.	<b>6</b>	<b>L2</b>	<b>CO5</b>
	<b>b.</b>	Describe the various steps of JDBC with code snippets.	<b>10</b>	<b>L2</b>	<b>CO5</b>
	<b>c.</b>	Write any two syntax of established a connection to a database.	<b>4</b>	<b>L2</b>	<b>CO5</b>
<b>OR</b>					
<b>Q.10</b>	<b>a.</b>	Describe the following concepts : (i) Scrollable Resultset (ii) Callable statement. (iii) Transaction processing (iv) Updatable Resultset.	<b>10</b>	<b>L2</b>	<b>CO5</b>
	<b>b.</b>	What is connection pooling? Explain connection pooling with code snippets.	<b>6</b>	<b>L2</b>	<b>CO5</b>
	<b>c.</b>	Explain different kinds of exceptions in Database.	<b>4</b>	<b>L2</b>	<b>CO5</b>

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