22MCA341

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

			M	L	C
		Module – 1			
Q.1	a.	What is enum? Demonstrate the use of ordinal ( ), compareTo ( ), equals ( ) and values ( ) method with enumeration.	10	L2	CO1
	b.	Define with example for each of the following : (i) Auto boxing. (ii) Unboxing (iii) Type wrapper (iv) Marker Annotation.	10	L2	CO1
		OR			
Q.2	a.	Explain built in Annotations in detail with necessary example snippets.	10	L2	CO1
	b.	What is Annotation? Explain how do you obtain annotations at run time by use of reflection.	10	L2	CO1
		Module – 2			
Q.3	a.	Explain the following collection interfaces with example program: (i) Queue (ii) Sorted set.	10	L2	CO2
	b.	Describe ArrayList class and explain with its constructors. Demonstrate its usage with an example program.	10	L2	CO2
		OR			
Q.4	a.	Discuss the following map classes with example : (i) Hash map (ii) Tree map	10	L2	CO2
	b.	List and explain any five collection algorithms. Demonstrate various algorithms with an example program.	10	L3	CO2
		Module – 3			
Q.5	a.	Illustrate the use of following methods with an example: (i) insert (ii) append (iii) replace (iv) substring	10	L2	CO1
	b.	Differentiate string and string buffer classes. Write a program to demonstrate different constructors of string class.	10	L3	CO1
		OR			
Q.6	a.	Explain the following string comparison methods with an example : (i) equals ( ) (ii) compareTo ( ) (iii) = = (iv) equalsIgnoreCase	10	L2	CO1
	b.	Illustrate character extraction methods with examples.	10	L3	CO1

		Module – 4			
Q.7	a.	Explain the life cycle of a servlet.	10	L2	CO1
	b.	What is cookie? Explain the working of cookie in Java with code snippets.	10	L2	CO1
		OR			
Q.8	a.	Define JSP. Explain different types of JSP tags by taking suitable examples.	10	L2	CO1
	b.	List and explain core classes and interfaces in JavaX.Servlet package.	10	L2	CO1
		Module – 5			
Q.9	a.	Describe the various steps of JDBC process with code snippets.	10	L4	CO3
	b.	Explain prepared statement and callable statement in JDBC with example.	10	L4	CO3
		OR			
Q.10	a.	List and explain JDBC Driver types.	10	L2	CO3
	b.	What is Result set? Explain Scrollable and Updatable Result set in JDBC with example.	10	L4	CO3

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