22MCA341

Third Semester MCA Degree Examination, Dec.2023/Jan.2024 Advanced Java & J2EE

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.

Time: 3 hrs.

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

	Module – 4			
a.		10	L2	CO1
b.	What is cookie? Explain the working of cookie in Java with code snippets.	10	L2	CO1
	OR			
a.		10	L2	CO1
b.	List and explain core classes and interfaces in JavaX.Servlet package.	10	L2	CO1
	Module – 5	T		
a.		10	L4	CO3
b.	Explain prepared statement and callable statement in JDBC with example.	10	L4	CO3
	OR			
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. CMRIT LIBRARY	10	L4	CO3
	b. a. b. a. a.	 b. What is cookie? Explain the working of cookie in Java with code snippets. OR a. Define JSP. Explain different types of JSP tags by taking suitable examples. b. List and explain core classes and interfaces in JavaX. Servlet package. Module – 5 a. Describe the various steps of JDBC process with code snippets. b. Explain prepared statement and callable statement in JDBC with example. OR a. List and explain JDBC Driver types. b. What is Result set? Explain Scrollable and Updatable Result set in JDBC 	a. Explain the life cycle of a servlet. b. What is cookie? Explain the working of cookie in Java with code snippets. OR a. Define JSP. Explain different types of JSP tags by taking suitable examples. b. List and explain core classes and interfaces in JavaX.Servlet package. 10 Module – 5 a. Describe the various steps of JDBC process with code snippets. 10 b. Explain prepared statement and callable statement in JDBC with example. OR 10 NoR NoR NoR NoR NoR NoR NoR No	a. Explain the life cycle of a servlet. b. What is cookie? Explain the working of cookie in Java with code snippets. OR a. Define JSP. Explain different types of JSP tags by taking suitable examples. b. List and explain core classes and interfaces in JavaX.Servlet package. Module – 5 a. Describe the various steps of JDBC process with code snippets. Describe the various steps of JDBC process with code snippets. DR List and explain JDBC Driver types. OR a. List and explain JDBC Driver types. DR L2 L4 DR L4 DR L4 DR L4 DR L4 DR L4 DR L5 DR L6 DR L7 DR L7 DR DR DR DR DR DR DR DR DR D