BCS306A

USN

Third Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025
Object Oriented Programming with 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.	List and explain any three features of object oriented programming.	6	L1	CO1
	b.	What do you mean by type conversion and type casting? Give examples.	8	L2	CO1
	c.	How to declare and initialize 1-D and 2-D arrays in Java. Give examples.	6	L2	CO1
		OR			
Q.2	a.	List the short circuit operators and show the concept using few examples.	4	L2	CO1
	b.	With a java program, illustrate the use of ternary operator to find the greatest of three numbers.	6	L3	CO1
	c.	Develop a Java program to demonstrate the working of for each version of for loop. Initialize the 2D array with values and print them using for each.	10	L2	CO1
		Module – 2			
Q.3	a.	Develop a program in Java to implement a stack of integers.	12	L3	CO2
	b.	What are constructors? Give the types and explain the properties of constructors. Support with appropriate examples.	8	L2	CO2
		OR			
Q.4	a.	Illustrate with an example program to pass objects as arguments.	10	L2	CO2
	b.	Explain different access specifies in Java with example program.	10	L2	CO2
		Module – 3			
Q.5	a.	Define inheritance. List and explain different types of inheritance in Java with code snippets.	10	L2	CO3
	b.	Compare and contrast between overloading and overriding in Java with example program for each.	10	L2	CO3
		OR			
Q.6	a.	Analyze an interface in Java and list out the speed of an interface. Illustrate with the help of a program the importance of an interface.	10	L2	CO3
	b.	List the different uses of final and demonstrate each with the of code snippets.	10	L2	CO3

		Module – 4			
Q.7	a.	Define a package. Explain how to create user defined package with example.	7	L2	CO4
	b.	Discuss about exception handling in Java. Give the framework of the exception handling block. List the types of exception.	8	L2	CO4
	c.	Develop a Java program to raise a custom exception for division by zero using try, catch, throw and finally.	5	L3	CO4
		OR			
Q.8	a.	Compare throw and throws keyword by providing suitable example program.	10	L2	CO4
	b.	Explain about the need for finally block.	5	L2	CO4
	c.	Discuss about chained exceptions.	5	L2	CO4
		Module – 5			
Q.9	a.	Define thread. Demonstrate creation of multiple threads with a program.	10	L2	CO5
	b.	Explain the two ways in which Java threads can be instantiated. Support your explanation with a sample program.	10	L2	CO5
		OR			
Q.10	a.	What is enumeration? Explain the methods values( ) and valueof( ).	10	L2	CO5
	b.	Explain about type wrappers and auto boxing.	10	L2	CO5

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