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BCS306A

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Third Semester B.E./B.Tech. Degree Examination, June/July 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.

			M	L	C
		Module – 1			
Q.1	a.	List and explain control statements in Java with programming example.	10	L1	CO1
	b.	List and explain operators in Java.	10	L1	CO1
		OR			
Q.2	a.	How are arrays declared and initialized in Java. Explain with suitable example.	10	L2	CO1
	b.	Develop a Java program to add two matrices of suitable order N.	10	L6	CO1
		Module – 2			
Q.3	a.	With code Snippet, explain different Access specifiers in Java.	10	L2	CO2
	b.	Explain the Garbage collection and finalize ( ) method in Java.	10	L2	CO2
		OR			
Q.4	a.	With code snippet, explain method overloading in Java.	10	L3	CO3
	b.	Develop a stack class to hold a maximum of 10 integers with suitable methods. Develop a Java main method to illustrate stack operations.	10	L6	CO2
		Module – 3			
Q.5	a.	What is inheritance? Discuss different types of inheritance with suitable example.	10	L2	CO3
	b.	Develop a Java program to create a class named SHAPE, create three sub classes namely CIRCLE, TRIANGLE and SQUARE. Each class has two member functions named DRAW ( ) and ERASE ( ). Demonstrate polymorphism concept by developing suitable methods, defining member data and main program.	10	L6	CO3
		OR			
Q.6	a.	Demonstrate with code snippet method overriding in Java and justify with code snippet prevention of overriding in inheritance.	10	L3	CO3
	b.	Briefly explain implementation of interface by taking suitable example.	10	L2	CO3
		Module – 4			
Q.7	a.	What is package? How to create and import packages in Java.	10	L2	CO4
	b.	What is an exception? Explain the followings : (i) try (ii) catch (iii) throw (iv) throws (v) finally	10	L2	CO4

		OR			
Q.8	a.	How do you create your own exception class? Explain with code snippet.	10	L2	CO4
	b.	Explain the following terms with respect to packages : (i) Built-in Exceptions (ii) Access protection for packages	10	L2	CO4
		Module – 5			
Q.9	a.	What is multithreading? List and explain the methods to implement multithreading.	10	L2	CO5
	b.	Explain the followings : (i) Enumeration (ii) Type wrappers	10	L2	CO5
		OR			
Q.10	a.	List and explain benefits of multi-threading.	10	L1	CO5
	b.	What is Autoboxing? Write a Java Program that demonstrates autoboxing/unboxing occurs inside expressions.	10	L3	CO5

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