

# CBCS SCHEME

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BCS306A



## Third Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026 Object Oriented Programming with Java

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.	Explain feature of Java.	7	L2	CO1
	b.	Define array, write a java program to calculate the average among the elements [8, 6, 2, 7].	7	L3	CO1
	c.	List and explain operators in JAVA with examples.	6	L2	CO1
<b>OR</b>					
Q.2	a.	Explain OOP's features in java.	7	L2	CO1
	b.	Write a java program to sort the elements using a for loop.	7	L3	CO1
	c.	With example, explain different types of if statement in JAVA.	6	L2	CO1
<b>Module - 2</b>					
Q.3	a.	Define Constructor. Explain two types of constructors with an example.	7	L3	CO2
	b.	Define Recursion. Write a recursive program to find factorial of a number.	7	L3	CO2
	c.	Explain garbage collection with an example, explain final and finalize ( ) method.	6	L2	CO2
<b>OR</b>					
Q.4	a.	Define class. Explain call by value and call by reference with an example program.	7	L3	CO2
	b.	Using proper class and methods write a program to perform stack operations.	7	L3	CO2
	c.	Explain the use of this keyword in java with an example.	6	L2	CO2
<b>Module - 3</b>					
Q.5	a.	Write a java program to implement multilevel inheritance with 3 levels of hierarchy.	7	L3	CO3
	b.	Define interface. With suitable program explain nested interface in java.	7	L3	CO3
	c.	Explain dynamic method dispatch with a suitable example.	6	L2	CO3

OR

Q.6	a.	Explain inheritance. Write a java program to implement single level inheritance.	7	L3	CO3
	b.	Explain the importance of the super key word in inheritance, illustrate with a suitable example.	7	L3	CO3
	c.	Define method overloading and overriding with example.	6	L2	CO3

Module – 4

Q.7	a.	Define Package, with an example, explain the steps are involved in creating a user-defined package.	7	L2	CO4
	b.	With sample code, explain chained exception.	7	L3	CO4
	c.	Define an exception, with syntax explain all five keywords used in exception handling.	6	L2	CO4

OR

Q.8	a.	Explain the concept of package importing in java with an example.	7	L2	CO4
	b.	How do you create your own exception class, explain with a program.	7	L2	CO4
	c.	With an example, explain working of a nested try block within an exception.	6	L3	CO4

Module – 5

Q.9	a.	Define Thread. With diagram explain the java thread model.	7	L2	CO5
	b.	Explain synchronization with an example, how synchronization is implemented in java.	7	L3	CO5
	c.	With suitable example, explain values( ) and valueOf( ) method in enumeration.	6	L2	CO5

OR

Q.10	a.	Define Multithreading, write a program to create multiple threads in java.	7	L2	CO5
	b.	Demonstrates the usage of compareTo( ) and equals( ) method with enumeration constants.	7	L3	CO5
	c.	Explain autoboxing / unboxing in expressions.	6	L2	CO5

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