

**BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY & SCIENCE
(AUTONOMOUS)**

II - B. Tech I-Semester Supplementary Examinations (BR23), Mar - 2026

OOPS THROUGH JAVA (CSE, CSE-AI&DS, AI&ML, INF)

Time: 3 hours

Max. Marks: 70

*Question Paper consists of Part-A and Part-B
Answer ALL the question in Part-A and Part-B*

PART-A (10X2 = 20M)

	Marks	CO	BL
1. a) Explain unary operators in Java with example.	(2M)	CO1	BL2
b) What is constructor overloading?	(2M)	CO2	BL1
c) What is Java Interface?	(2M)	CO3	BL2
d) Define exception in Java	(2M)	CO4	BL2
e) What is Auto-boxing and Auto-unboxing?	(2M)	CO4	BL1
f) Define immutable class.	(2M)	CO5	BL2
g) What is JDBC?	(2M)	CO5	BL1
h) What is dynamic binding?	(2M)	CO1	BL2
i) Define inheritance	(2M)	CO3	BL1
j) What is method overloading?	(2M)	CO2	BL1

PART-B (5X10 = 50M)

2a. Demonstrate static variables and static methods	(5M)	CO1	BL3
b. Explain command line arguments in Java with example	(5M)	CO1	BL2
(OR)			
3a. Differentiate while loop and do-while loop with suitable examples.	(5M)	CO1	BL2
b. Write a Java program demonstrating type casting (implicit and explicit).	(5M)	CO1	BL3
4a. A banking system stores sensitive customer information such as account balance and PIN. Analyse how the use of the private access specifier in Java helps protect this sensitive data from unauthorized access. Explain how controlled access can be provided using appropriate methods.	(5M)	CO2	BL4
b. Write a Java program to swap two numbers using call by reference	(5M)	CO2	BL2
(OR)			
5a. Explain method overloading in Java with example program.	(5M)	CO2	BL3
b. Apply the concepts of static and final keywords in Java by developing a program that shows how static variables and final constants are used in a class.	(5M)	CO2	BL3

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| 6a. | Explain the concept of super keyword with suitable example | (5M) | CO3 | BL3 |
| b. | Describe dynamic method dispatch with example. | (5M) | CO3 | BL2 |
| (OR) | | | | |
| 7a. | Write a Java program to demonstrate multilevel inheritance. | (5M) | CO3 | BL3 |
| b. | Explain nested interfaces with example program | (5M) | CO3 | BL2 |
| 8a. | Discuss about wrapper classes in Java. | (5M) | CO4 | BL2 |
| b. | Demonstrate the use of packages in Java by creating a user-defined package and accessing its class in another program. | (5M) | CO4 | BL3 |
| (OR) | | | | |
| 9a. | Explain checked and unchecked exceptions in Java. | (5M) | CO4 | BL3 |
| b. | Write a program to demonstrate Temporal Adjusters class. | (5M) | CO4 | BL3 |
| 10a | Explain the life cycle of a thread with diagram. | (5M) | CO5 | BL2 |
| b. | List and explain the methods used for extracting characters from a string in Java.. | (5M) | CO5 | BL2 |
| (OR) | | | | |
| 11a | Write the importance of Result Set Interface with suitable example | (5M) | CO5 | BL2 |
| b. | Explain steps to connect MySQL with Java using JDBC. | (5M) | CO5 | BL3 |
