

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: BCA
BRANCH: BCA**

**SEMESTER : III
SESSION : MO/2025**

SUBJECT: CN201 JAVA PROGRAMMING

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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		CO	BL
Q.1(a)	Explain the principles and benefits of OOP with suitable examples.	[5] 1	1
Q.1(b)	What is the Java Virtual Machine (JVM) and what role does it play?	[5] 2	2
Q.2(a)	Explain the working of try-throw-catch-finally statements with a complete example.	[5] 2	2
Q.2(b)	Write a Java program to find the largest element in an array.	[5] 3	3
Q.3(a)	Explain function declaration, definition, and call in Java with examples.	[5] 3	3
Q.3(b)	Write a Java program that demonstrates the use of classes, constructors, and methods together.	[5] 3	3
Q.4(a)	Differentiate between single, multi-level, and multiple inheritance with suitable diagrams and examples.	[5] 4	4
Q.4(b)	Write a Java program to count the number of words and characters in a sentence.	[5] 3	3
Q.5(a)	Discuss the life cycle of an Applet with a neat diagram.	[5] 2	2
Q.5(b)	How can you display text on an applet window? Explain with suitable example?	[5] 3	3

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