

CBCS SCHEME

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BPLCK205C

Second Semester B.E./B.Tech. Degree Examination, June/July 2026

Basics of Java Programming



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.	Discuss the different primitive data types available in Java. Provide examples for each.	06	L1	CO1
	b.	Explain different lexical issues in Java.	08	L2	CO1
	c.	With reason identify the following declarations are valid or invalid. #AvgTemp, Count, a4, \$test, 2count, high-temp, _Sum, if	06	L2	CO1
OR					
Q.2	a.	What are Keywords and Identifiers? List the rules to write identifiers.	06	L1	CO1
	b.	Briefly explain basic principles of Java.	10	L2	CO1
	c.	Differentiate between Stack Memory and heap memory in Java.	04	L1	CO1
Module – 2					
Q.3	a.	What are the different types of operators in Java? Explain them.	06	L2	CO2
	b.	Demonstrate working of break with labels in Java	06	L2	CO2
	c.	Write a Java program to compute the factorial of a number using loop.	08	L2	CO2
OR					
Q.4	a.	Write a Java program to compute the roots of quadratic equation $ax^2 + bx + c = 0$	10	L3	CO2
	b.	Explain for each loop in Java. Write a program to calculate the average among the elements 3, 5, 7, 9 using for each in Java.	10	L3	CO2

Module – 3					
Q.5	a.	What are Constructors? Explain types of constructors with example program.	10	L1	CO3
	b.	Write a Java program demonstrating method overloading.	10	L3	CO3
OR					
Q.6	a.	Explain how to perform stack operation using proper class and methods.	08	L3	CO3
	b.	Write a Java program to find Fibonacci series using recursion.	06	L3	CO3
	c.	Explain memory allocation and use of garbage collection in Java.	06	L1	CO3
Module – 4					
Q.7	a.	Why multiple inheritance is not supported in Java. Justify with an example.	08	L3	CO3
	b.	Explain Abstract class and Abstract method with an example.	06	L2	CO3
	c.	Demonstrate the working of final class and final method in Java.	06	L3	CO3
OR					
Q.8	a.	Design a super class called staff with details as Staffid, Name, Phone, and Salary. Extend this class by writing 3 subclasses namely Teaching (domain, publications), Technical (Skills) and Contract (Period). Write a Java program to read and display atleast 3 staff objects of all three categories.	10	L3	CO3
	b.	Demonstrate dynamic dispatch with abstract class in Java.	10	L3	CO3
Module – 5					
Q.9	a.	Write a neat block diagram. Explain types of Java Exceptions.	10	L2	CO4
	b.	Demonstrate the working of interface in Java.	10	L2	CO4
OR					
Q.10	a.	Write a Java program to read 2 integers a and b. Compute a/b and print, when b is not zero. Raise an exception when b is equal to zero. Also demonstrate its working of ArrayIndexOutOfBoundsException.	12	L2	CO4
	b.	Illustrate “throw” and “throws” in Java Exceptions with example.	08	L3	CO4
