



**JSS MAHAVIDYAPEETHA**  
**JSSACADEMYOFTECHNICALEDUCATION,NOIDA**  
**DEPARTMENT OF INFORMATION TECHNOLOGY**  
**CIA-I|EvenSemester-(AY2024-25]**

RollNo.

Course : B.Tech  
Semester : IV<sup>th</sup>  
Subject : Object Oriented Programming with Java  
Time : 1hrs=60min

Date : 03/05/2025  
Subject Code : BCS403  
Max. Marks : 20

COURSE OUTCOMES		BL/KC*
CO1	Develop the object-oriented programming concepts using Java	K3,K4
CO2	Implement exception handling, file handling, and multi-threading in Java	K2,K4
CO3	Apply new java features to build java programs.	K3
CO4	Analyse java programs with Collection Framework	K4
CO5	Test web and RESTful Web Services with Spring Boot using Spring Framework concepts	K5

**Section-A**

Attempt all the questions of this section

(1 X5=5)

Q.No.	Question	Marks	CO	BL/KC*
1.	a Show how bytecode make java as platform independent language.	1	CO1	K1
	b Object is an instance of a class, Justify your answer	1	CO1	K1
	c Mention the role of class path in java package.	1	CO1	K1
	d How are objects implemented in Java?	1	CO1	K1
	e List the limitations of static members?	1	CO1	K1

**Section-B**

Attempt all the questions of this section

(3X3=9)

2.	Compare & contrast Procedure Oriented Programming and Object Oriented Programming.	3	CO1	K2
	OR Explain the striking feature of java as Object oriented programming language.			
3.	Illustrate Constructors and their applications in Java. Describe the types of constructors used in Java.	3	CO1	K2
	OR Explain the term polymorphism with its types. Also explain how polymorphism is implemented in java.			
4.	What do you mean by an abstract class? How abstract class is different from interface?	3	CO1	K2
	OR Explain the use of super keyword with proper example.			

**Section-C**

Attempt all the questions of this section

(6X1=6)

5.	Why multiple inheritance is not possible in java? Write a java program to explain how it implemented in java.	6	CO1	K3
	OR Write a Java program to create a class called Employee with methods called work() and getSalary(). Create a subclass called HRManager that overrides the work() method and adds a new method called addEmployee().			

*GV*

*Chits*