

**PSG COLLEGE OF ARTS & SCIENCE**  
(AUTONOMOUS)  
**BSc DEGREE EXAMINATION DECEMBER 2025**  
(Third Semester)

Branch - COMPUTER SCIENCE

**OBJECT ORIENTED PROGRAMMING USING JAVA**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which of the following concepts is used to achieve runtime polymorphism in Java? a) Method Overloading      b) Method Overriding c) Constructor Overloading      d) Encapsulation	K1	CO1
	2	The return type of a constructor in Java is _____. a) void      b) int c) No return type      d) Class type	K2	CO1
2	3	What is the purpose of the import statement in Java? a) To define a package      b) To inherit classes c) To execute Java code d) To include packages or classes into the current file	K1	CO2
	4	The default access modifier for the methods in Java interface is _____. a) private      b) public      c) protected      d) modify	K2	CO2
3	5	Which of the following is NOT a valid thread state? a) NEW      b) BLOCKED c) PAUSED      d) TERMINATED	K1	CO3
	6	The output of the following code is _____. String s = "Hello"; System.out.println(s.substring(1, 4)); a) ell      b) ello      c) Hel      d) lo	K2	CO3
4	7	Find out the class that is used to read character-based input from a file in Java. a) BufferedReader      b) FileInputStream c) FileReader      d) FileWriter	K1	CO4
	8	How can you set multiple selection mode in a JList? a) setSelectionMode()      b) setMultipleSelection() c) setMultiSelectMode()      d) setSelectMode()	K2	CO4
5	9	Identify the correct order of steps in a typical JDBC process. a) Execute query -> Establish connection -> Handle results -> Close connection b) Handle results -> Establish connection -> Execute query -> Close connection c) Close connection -> Execute query -> Handle results -> Establish connection d) Establish connection -> Execute query -> Handle results -> Close connection	K2	CO5
	10	Lambda expressions can be used primarily to implement _____ type of interfaces in Java. a) Functional interfaces      b) Static interfaces c) Abstract interfaces      d) Serializable interfaces	K1	CO5

Cont...

**SECTION - B (35 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Outline the concept of Inheritance in Java with relevant examples.	K3	CO1
		(OR)		
	11.b.	Explain the general form of a Class with examples.		
2	12.a.	List the steps required to import a user-defined package into a Java program.	K3	CO2
		(OR)		
	12.b.	Define the syntax for extending interfaces in Java and illustrate with an example.		
3	13.a.	Design a method to concatenate two strings and display the result using the concat() method.	K5	CO3
		(OR)		
	13.b.	Construct a Java program to add five elements to an ArrayList and print the list.		
4	14.a.	Discuss the process of reading a single byte of data from a file using FileInputStream.	K4	CO4
		(OR)		
	14.b.	Show how the JList component displays a collection of items.		
5	15.a.	Build a JDBC program for connecting to a database system, including the user credentials.	K4	CO5
		(OR)		
	15.b.	How to execute an UPDATE SQL query using JDBC? Discuss it.		

**SECTION - C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Examine parameterized constructor with an examples.	K4	CO1
2	17	Explore on nested try blocks. Explain it with an example.	K4	CO2
3	18	Develop a Java program to demonstrate thread priorities affecting thread execution.	K5	CO3
4	19	Demonstrate how to create a JTable to display the data.	K4	CO4
5	20	Create a method that takes a string representing a date and converts it to a LocalDate object using a specific format.	K5	CO5