

Code: 23IT3501

III B.Tech I Semester - Supplementary Examinations - APRIL 2026**ADVANCED JAVA
(INFORMATION TECHNOLOGY)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This question paper contains two Parts A and B.

2. Part-A contains 10 short answer questions. Each Question carries 2 Marks.

3. Part-B contains 5 essay questions with an internal choice from each unit. Each Question carries 10 marks.

4. All parts of Question paper must be answered in one place.

PART – A

1.a)	What role does the JDBC Driver Manager play in JDBC architecture?
1.b)	How do you manage transactions manually in JDBC?
1.c)	Name the two main types of containers in EE6.
1.d)	How is MVC related to Model-2 architecture?
1.e)	What is a servlet in Java?
1.f)	How is an HttpSession object created in a servlet?
1.g)	What are the advantages of using JSP?
1.h)	What does CRUD stand for in JSP applications?
1.i)	Why Spring is considered a lightweight framework?
1.j)	Mention any two components involved in the Spring MVC request-processing life cycle.

PART – B

			Max. Marks
UNIT-I			
2	a)	List and explain any five core JDBC interfaces, classes and their roles in database connectivity.	5 M
	b)	Explain the steps involved in creating a simple JDBC application with suitable code snippets.	5 M
OR			
3	a)	Differentiate between <code>ResultSet.TYPE_FORWARD_ONLY</code> and <code>ResultSet.TYPE_SCROLL_INSENSITIVE</code> with examples.	5 M
	b)	Write a Java program that demonstrates batch insert operations using JDBC.	5 M
UNIT-II			
4	a)	Describe the structure of an HTTP request. Explain any three common HTTP methods.	5 M
	b)	Explain how a web container handles HTTP requests in a servlet-based application.	5 M
OR			
5	a)	Explain any two enterprise architecture types used in J2EE with suitable diagrams.	5 M
	b)	Explain the Model-I architecture with a diagram. What are its advantages and disadvantages?	5 M

UNIT-III			
6	a)	Discuss the security features provided by servlets. How can you implement secure data transmission using HTTPS?	5 M
	b)	List and describe the main interfaces in the Servlet API and their significance.	5 M
OR			
7	a)	Describe the life cycle of a servlet with a labeled diagram and suitable explanation of init(), service(), and destroy() methods.	5 M
	b)	Explain how to retrieve form data and request parameters using HttpServletRequest methods.	5 M
UNIT-IV			
8	a)	Draw and explain the life cycle flow of a JSP page from request to response.	5 M
	b)	List and explain the purpose of any five JSP implicit objects with code examples.	5 M
OR			
9	a)	Write a JSP code using <jsp: useBean>, <jsp:setProperty>, and <jsp:getProperty>. Explain its working.	5 M
	b)	What is JSTL? Explain the usage of any three core JSTL tags with examples.	5 M
UNIT-V			
10	a)	Describe the steps involved in bean lifecycle management by the Spring container.	5 M

	b)	Compare constructor injection with setter injection in terms of usage and limitations.	5 M
OR			
11	a)	Define Inversion of Control (IoC). How is it implemented in Spring through dependency injection?	5 M
	b)	Write a simple Spring program using annotation-based configuration. Explain each annotation used.	5 M