

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MCA DEGREE EXAMINATION MAY 2025
(Second Semester)
Branch – COMPUTER APPLICATIONS
ADVANCED JAVA PROGRAMMING**

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Question No.	Question	K Level	CO
1	Which of the following does the J2EE platform consist of? a. Service b. APIs c. Protocols d. All of these	K1	CO1
2	Where does web tier components run in J2EE multitier applications? a. Client tier b. J2EE server c. EIS server d. IIS	K2	CO1
3	How construct can be used for a servlet? a. Initialization b. Constructor function c. Initialization and constructor function d. Setup() method	K1	CO2
4	How is the dynamic interception of requests and responses to transform the information done? a. Servlet container b. Servlet config c. Servlet context d. Servlet filter	K2	CO2
5	Expand JSP. a. Java Server Pages b. Java Servlet Pages c. Java Script Pages d. Java Standard Pages	K1	CO3
6	What is the purpose of <% %> directive in JSP? a. To declare variables b. To import classes c. To execute java code d. To include other JSP file	K2	CO3
7	Which of the following is not an Enterprise Beans type? a. Doubleton b. Singleton c. Stateful d. Stateless	K1	CO4
8	Which of the following is not a feature of Beans? a. Introspection b. Events c. Persistence d. Serialization	K2	CO4
9	Expand the term JMS. a. Java Message Service b. Java Monitor Service c. Java Message Session d. Java Monitor Session	K1	CO5
10	What represent a persistent global data from the database? a. Entity Bean b. Session Bean c. Java Bean d. EJB	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Question No.	Question	K Level	CO
11.a.	Describe the J2EE architecture.	K2	CO1
(OR)			
11.b.	Describe the steps to connect a database using JDBC.		
12.a.	Write a servlet that handles a simple HTTP request and response.	K3	CO2
(OR)			
12.b.	Explain the difference between a servlet and a JSP.		
13.a.	Write a JSP page that displays a simple Hello World message.	K3	CO3
(OR)			
13.b.	Explain how to use JSP directives to include other files and import classes.		
14.a.	Describe the benefits of using JavaBeans.	K4	CO4
(OR)			
14.b.	Explain how to use JavaBeans to create a graphical user interface (GUI) component.		
15.a.	Explain the concept of Java mail API.	K4	CO5
(OR)			
15.b.	Components of a JMS program. Describe.		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Question No.	Question	K Level	CO
16	Design a J2EE based e-commerce application including servlets, JSP's and EJB's.	K4	CO1
17	Write a servlet that handles a form submission and stores the data in a database.	K4	CO2
18	Implement a JSP page that uses session tracking to store user data.	K5	CO3
19	Explain how to use JavaBeans to create a web application?	K5	CO4
20	Implement a JMS client that sends and receives messages.	K6	CO5