PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2025
(Fifth Semester)

Branch – **COMPUTER SCIENCE**

ADVANCED JAVA PROGRAMMING

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	_____ is an example of a Java EE server? a) Eclipse b) GlassFish c) NetBeans d) JDK	K1	CO1
	2	The Java EE platform primarily supports_____ a) Desktop applications b) Embedded systems c) Enterprise applications d) Mobile applications	K2	CO1
2	3	Which method of RequestDispatcher is used to include the content of another resource in the response? a) forward() b) include() c) sendRedirect() d) dispatch()	K1	CO2
	4	Identify the method of HttpSession returns a unique session ID. a) getId() b) getSessionId() c) getUniqueId() d) getIdentifier()	K2	CO2
3	5	Which Java package provides support for Non-Blocking I/O? a) java.io b) java.nio c) java.net d) java.servlet	K1	CO3
	6	JSP elements can include: a) Declarations b) Expressions c) Scriptlets d) All of the above	K2	CO3
4	7	Which symbol is used to start an EL expression in JSP? a) <%= %> b) ${} c) <%! %> d) <% %>	K1	CO4
	8	_____ JSTL tag library deals with SQL operations. a) core b) fmt c) sql d) xml	K2	CO4
5	9	What is the main purpose of persistence in Java? a) To execute SQL queries directly in Java b) To store and retrieve Java objects from a database c) To serialize objects into files d) To improve code compilation time	K1	CO5
	10	In JPA, which annotation is used to specify the primary key of an entity? a) @Primary b) @Id c) @Key d) @Main	K2	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.	Write note on the concept of Java EE and its evolution.	K2	CO1
		(OR)		
	11.b.	What is a Servlet? Explain its basic life cycle.	K2	CO1
2	12.a.	Examine the kinds of cookies and how cookies are created using servlets?	K3	CO2
		(OR)		
	12.b.	Explain the lifecycle of an HTTP session.	K3	CO2
3	13.a.	Explain how a Non-Blocking Read Application works in Java?	K4	CO3
		(OR)		
	13.b.	Describe different types of comments and elements used in JSP.	K4	CO3
4	14.a.	Summarize implicit objects in JSP with examples.	K3	CO4
		(OR)		
	14.b.	Explain the JSTL core tags with suitable examples.	K3	CO4
5	15.a.	Discuss the current persistence standards in Java with examples.	K4	CO5
		(OR)		
	15.b.	Expound on the JPA architecture.	K4	CO5

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	Discuss in detail the Java EE architecture and its components with a suitable diagram.	K4	CO1
2	17	Illustrate how file uploading is done using Servlets? with an example.	K4	CO2
3	18	Examine the steps to create a basic Java web application using servlets and JSP.	K4	CO3
4	19	Analyze the spring architecture in detail with a neat diagram.	K4	CO4
5	20	Illustrate JPA entities and relationships with examples.	K4	CO5

Z-Z-Z   END