

Dr. Babasaheb Ambedkar Open University
Term End Examination July – 2026

Course	: BCA	Date	: 11-07-2026
Subject Code	: BCAMA-401	Time	: 03:00pm to 05:15pm
Subject Name	: Object Oriented Concepts & Programming –II (Advanced Java)	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Explain the architecture of Swing with its containers. Also differentiate it from the AWT API.
2. Explain JDBC architecture and different types of JDBC drivers with their advantages and disadvantages.
3. Explain the Servlet Life Cycle. How does the web container manage the lifecycle of a servlet object?
4. What is the role of the Expression Language in JSP? how does it simplify data access? Describe with example.
5. Discuss the RequestDispatcher interface in detail including the differences between forward() and include() methods.

Section B

Answer the following (Attempt any four) (20)

1. Explain the role of Layout Managers in Java Swing and describe the FlowLayout manager.
2. What are the key properties of the ACID model in JDBC transactions?
3. Compare the GET and POST methods used in HTTP requests within Servlets with example.
4. Write a short note on the JSTL.
5. Explain the role & importance of the web.xml deployment descriptor in Java Web Applications.
6. Discuss the implementation of Batch Processing in JDBC using Statement objects.

Section C

Part – A (Multiple Choice Questions) (10)

1. Which package contains the Swing component classes?
A. java.awt B. javax.swing
C. java.swing D. javax.awt
2. Which object acts as an intermediary between a Java application and the database driver?
A. Statement B. DriverManager
C. ResultSet D. Connection
3. What is the default method for an HTML form if not specified?
A. POST B. PUT
C. GET D. DELETE
4. Which JSP directive is used to include files or define imports?
A. Page B. Include
C. Taglib D. All of the above

5. Which layout manager divides the container into five regions like NORTH, SOUTH, EAST, WEST, CENTER?
 - A. FlowLayout
 - B. BorderLayout
 - C. GridLayout
 - D. CardLayout
6. Which method is used to commit a JDBC transaction manually?
 - A. save()
 - B. commit()
 - C. execute()
 - D. rollback()
7. Which method is called only once in the Servlet lifecycle, before processing any requests?
 - A. service()
 - B. destroy()
 - C. init()
 - D. doGet()
8. What does EL stand for in JSP?
 - A. Entry Level
 - B. Expression Language
 - C. Extended Logic
 - D. External Link
9. Which class is used to execute precompiled SQL statements?
 - A. Statement
 - B. CallableStatement
 - C. PreparedStatement
 - D. ResultSet
10. Which of the following is a JSTL core tag? **[Block 4]**
 - A. <c:if>
 - B. <sql:query>
 - C. <xml:parse>
 - D. <fmt:formatDate>

Part - B (Do as Directed)

(10)

1. Write the full form of AWT.
2. JDBC is language-independent. (True/False)
3. Servlets are managed by the _____.
4. Write the full form of JSTL.
5. The rollback() method is used to cancel a transaction if an error occurs. (True/False)
6. Which method is used to remove all elements from a collection?
7. JSP stands for _____.
8. Cookies are used for session management. (True/False)
9. Name one common HTTP method.
10. The init() method is invoked zero or many times during a servlet's lifecycle. (True/False)
