

# CBCS SCHEME - Make-Up Exam

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BIS402

## Fourth Semester B.E/B.Tech. Degree Examination, June/July 2025 Advanced Java

Time: 3 hrs.

Max. Marks:100

**Note:** 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. M : Marks , L: Bloom's level , C: Course outcomes.

| Module – 1 |    |                                                                                                                                                 | M  | L  | C   |
|------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|
| 1          | a. | What is collection framework? Explain any four methods defined by the collection interface.                                                     | 8  | L1 | CO1 |
|            | b. | Demonstrate ArrayList class for collection with an example.                                                                                     | 6  | L2 | CO1 |
|            | c. | Write the syntax declaration of Queue interface and explain any four methods defined by Queue.                                                  | 6  | L2 | CO1 |
| OR         |    |                                                                                                                                                 |    |    |     |
| 2          | a. | Explain the constructors of TreeSet with example.                                                                                               | 6  | L1 | CO1 |
|            | b. | Explain HashMap with example.                                                                                                                   | 6  | L2 | CO1 |
|            | c. | What is Legacy classes? Explain the different legacy classes with a java program.                                                               | 8  | L2 | CO1 |
| Module – 2 |    |                                                                                                                                                 |    |    |     |
| 3          | a. | What is string in Java? Explain the different constructors of string class.                                                                     | 8  | L2 | CO2 |
|            | b. | Explain the difference between equals and == with example.                                                                                      | 4  | L2 | CO2 |
|            | c. | Explain the string comparison function with suitable example.                                                                                   | 8  | L2 | CO2 |
| OR         |    |                                                                                                                                                 |    |    |     |
| 4          | a. | Explain the following StringBuffer methods with an example :<br>(i) append ( )      (ii) insert ( )      (iii) remove ( )      (iv) replace ( ) | 8  | L2 | CO2 |
|            | b. | Write a java program to sort names in bubble sort.                                                                                              | 6  | L3 | CO2 |
|            | c. | Write a program to remove duplicate characters from a given string and display the resultant string.                                            | 6  | L3 | CO2 |
| Module – 3 |    |                                                                                                                                                 |    |    |     |
| 5          | a. | What are the two key swing features? Explain.                                                                                                   | 4  | L2 | CO3 |
|            | b. | Write a simple swing application contains JFrame and JLabel and explain each line.                                                              | 10 | L2 | CO3 |
|            | c. | Describe delegation event model. Write a program to demonstrate event handling in a swing.                                                      | 6  | L3 | CO3 |



| OR         |    |                                                                                                                                              |    |    |     |
|------------|----|----------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|
| 6          | a. | Describe the different types of swing buttons.                                                                                               | 10 | L2 | CO3 |
|            | b. | What is difference between swing and AWT?                                                                                                    | 4  | L2 | CO3 |
|            | c. | Write a program to demonstrate a check boxes and Radio Button.                                                                               | 6  | L3 | CO3 |
| Module – 4 |    |                                                                                                                                              |    |    |     |
| 7          | a. | Explain the Life Cycle of Servlet.                                                                                                           | 6  | L2 | CO4 |
|            | b. | Write a Servlet program to accept parameter from HTML (username and password) and display.                                                   | 8  | L3 | CO4 |
|            | c. | Describe the core interfaces that are provided in Jakarta.Servlet.http. package.                                                             | 6  | L2 | CO4 |
| OR         |    |                                                                                                                                              |    |    |     |
| 8          | a. | What is JSP? Explain the various types of JSP tags with example.                                                                             | 6  | L2 | CO4 |
|            | b. | Describe the various steps in JDBC with code snippets.                                                                                       | 8  | L2 | CO4 |
|            | c. | Explain sessions and cookies in JSP.                                                                                                         | 6  | L2 | CO4 |
| Module – 5 |    |                                                                                                                                              |    |    |     |
| 9          | a. | What is JDBC? Explain the different JDBC driver types.                                                                                       | 10 | L2 | CO5 |
|            | b. | What is statement object in JDBC? Explain the following statement objects with example :<br>(i) Prepared statement<br>(ii) Callablestatement | 10 | L2 | CO5 |
| OR         |    |                                                                                                                                              |    |    |     |
| 10         | a. | What is Connexion pooling? Explain connection pooling with neat diagrams with code snippets.                                                 | 10 | L2 | CO5 |
|            | b. | Write a note on :<br>(i) Transaction Processing in JDBC.<br>(ii) Types of Exceptions occurred in JDBC.                                       | 10 | L2 | CO5 |

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