

|                           |   |
|---------------------------|---|
| <b>Branch: B.Sc.(IT)</b>  | <b>Semester-IV</b>                      |
| <b>Subject Code: 4201</b> | <b>Lecture: 02</b><br><b>Credit: 02</b> |
| <b>Course Opted</b>       | <b>Core Course - 11</b>                 |
| <b>Subject Title</b>      | <b>ADVANCED JAVA LAB</b>                |

**Course Objectives:**

- To write programs using swing.
- To write programs for solving real world problems using java collection frame work.
- To write servlet and JSP programs.
- To write GUI programs using swing controls in Java.
- To impart hands on experience with java programming.

**Course Outcomes:**

- Able to write programs for solving real world problems using java collection frame work.
- Able to write programs using swing, JSP, JDBC and Servlet.
- Able to write GUI programs using swing controls in Java.

| <b>Module</b> | <b>Sr. No.</b> | <b>Topic and Details</b>  | <b>No. of Lectures Assigned</b> | <b>Marks Weightage %</b> |
|---------------|----------------|---|---------------------------------|--------------------------|
| UNIT - I      | 1              | <b>Introduction to Swing:</b><br>Introduction to Swing,<br>Container Class,<br>GUI in JAVA, GUI Examples  | 2                               | 4                        |
| UNIT - II     | 2              | <b>Swing Component Basic:</b><br>Java Layout Manager, Java BorderLayout<br>Java FlowLayout, Java GridBagLayout<br>Implentation of Menus, GUI Designing using Menus, API                     | 2                               | 4                        |
|               | 3              | <b>Swing Component Basic:</b><br>Implementation of swing component List, comboBox,<br>Spinners, Swing containers, Root Pane, JFrame class,<br>JWindow class, JApplet class, Internal Frames | 2                               | 4                        |
| UNIT - III    | 4              | <b>JDBC Connectivity :</b><br>JDBC-ODBC Bridge Driver,<br>Native Driver,<br>Network Protocol Driver, and<br>Thin Driver<br>JDBC Environment should set-up along with database<br>creation.  | 4                               | 8                        |
|               | 5              | Connectivity with SQL, JDBC ResultSet, Execute read select<br>query, update records and execute query   | 4                               | 8                        |

|              |   |   |           |            |
|--------------|---|---|-----------|------------|
| UNIT -IV     | 6 | <b>Servlet:</b><br>Servlet programming, Database Connectivity,<br>class method, create an object in Java Servlet program<br>Get the data from the HTML file | 4         | 8          |
|              | 7 | <b>Java Server Pages (JSP):</b><br>Basic JSP Programs for addition, Factorial, Fibonacci,<br>Display current date and time                                  | 4         | 8          |
|              | 8 | <b>JAVA Beans:</b><br>Implementation of JAVA Bean class,<br>Setter and getters methods in JAVA Bean   | 3         | 6          |
| <b>TOTAL</b> |   |   | <b>25</b> | <b>100</b> |

**Text Book:**

1. Java for Programmers, P. J. Deitel and H. M. Deitel, 10th Edition Pearson education

**Reference Books:**

1. Thinking in Java, Bruce Eckel, Pearson Education.
2. Java Programming, D. S. Malik and P. S. Nair, Cengage Learning.
3. Core Java, Volume 1, 9th edition, Cay S. Horstmann and G Cornell, Pearson.