

## LESSON PLAN

**Academic Year** : **2023 – 2024**  
**Year & Semester /section** : **II B.Tech. & I SEMESTER / SECTION – S2**  
**Branch** : **COMPUTER SCIENCE & ENGINEERING**  
**Subject Code & Name** : **20CS3351 & OOP Through C++ LAB**  
**Name of Faculty** : **Mr. L V Krishna rao**

**CO1. Apply** Object oriented principles/ C++ constructs for solving problems. **(L3)**

**CO2. Implement** programs as an individual on different IDEs/ online platforms.

**CO3. Develop** an effective report based on various programs implemented.

**CO4. Apply** technical knowledge for a given problem and express with an effective oral communication. **(L3)**

**CO5. Analyse** outputs using given constraints/test cases. **(L4)**

| S.No. | Topic of syllabus to be covered  | Learning out comes   | Hours Required | Total no. of Hours (Cumulative ) | Expected date of topic covered | Actual date of topic covered | Review/ Remarks (By HOD) |
|-------|--|--|----------------|----------------------------------|--------------------------------|------------------------------|--------------------------|
| 1     | <b>Demonstration of C structures and functions</b>   | Implement programs on structures and functions   | 3              | 3                                | 07-08-2023                     |                              |                          |
| 2     | <b>Exercise 1</b> : Implement programs on predefined streams.  | Implement programs on pre-defined streams (CO1- CO5 – L4)  | 3              | 6                                | 14-08-2023                     |                              |                          |
| 3     | <b>Exercise 2</b> : Implement programs using functions (passing arguments, overloading).                               | Implement programs using functions (passing arguments, overloading). (CO1- CO5 – L4)                           | 3              | 9                                | 21-08-2023                     |                              |                          |
| 4     | <b>Exercise 3</b> : Implement programs using class/object concepts. (Access specifiers, class members, static members) | Implement programs using class/object concepts. (Access specifiers, class members, static members) (CO1- CO5 – | 3              | 12                               | 28-08-2023                     |                              |                          |

|    |  |   |   |    |            |  |  |
|----|--|---|---|----|------------|--|--|
|    |  | L4)   |   |    |            |  |  |
| 5  | <b>Exercise 4 :</b> Implement programs using friend functions.                                     | Implement programs using friend functions. (CO1- CO5 – L4)                                    | 3 | 15 | 04-09-2023 |  |  |
| 6  | <b>Exercise 5 :</b> Implement programs using constructor(s) and destructor.                        | Implement programs using constructor(s) and destructor. (CO1- CO5 – L4)                       | 3 | 18 | 11-09-2023 |  |  |
| 7  | <b>Exercise 6 :</b> Implement programs using operator overloading.                                 | Implement programs using operator overloading. (CO1- CO5 – L4)                                | 3 | 21 | 09-10-2023 |  |  |
| 8  | <b>Exercise 7 :</b> Implement various types of inheritance techniques.                             | Implement various types of inheritance techniques. (CO1- CO5 – L4)                            | 3 | 24 | 16-10-2022 |  |  |
| 9  | <b>Exercise 8 :</b> Implement programs using virtual functions to achieve polymorphism.            | Implement programs using virtual functions to achieve polymorphism. (CO1- CO5 – L4)           | 3 | 27 | 30-10-2023 |  |  |
| 10 | <b>Exercise 9 :</b> Implement programs using FileStreams   | Implement programs using FileStreams (CO1- CO5 – L4)  | 3 | 30 | 06-11-2023 |  |  |
| 11 | <b>Exercise 10 :</b> Implement programs on exception handling concepts.                            | Implement programs on exception handling concepts. (CO1- CO5 – L4)                            | 3 | 33 | 13-11-2023 |  |  |
| 12 | <b>Exercise 11 :</b> Implement programs on generic programming concept with templates.             | Implement programs on generic programming concept with templates. (CO1- CO5 – L4)             | 3 | 36 | 18-11-2023 |  |  |
| 13 | <b>Exercise 12 :</b> Implement containers in C++ (Sequence Containers and Associative Containers). | Implement containers in C++ (Sequence Containers and Associative Containers). (CO1- CO5 – L4) | 3 | 39 | 20-11-2023 |  |  |
| 14 | Lab Internal Exam  | Internal Lab Assessment Test  | 3 |    | 25-11-2023 |  |  |

**Signature of the Faculty**  
**Date:**

**Signature of the HOD**  
**Date:**