

## Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India (Autonomous Institute Affiliated to University of Mumbai)

| Pre-requisite  | Course | Codes  | ES4(Programming Methodology and Data Structures )               |  |  |  |
|--|--------|--|---|--|--|--|
| After successful completion of the course, student will be able to |        |  |   |  |  |  |
| Course   | CO1    | Use object oriented programming concepts for a scenario.               |   |  |  |  |
| Course<br>Outcomes<br>for<br>Laboratory                            | CO2    | Apply concept of input output and string handling                      |   |  |  |  |
|  | CO3    | Demonstrate polymorphism, static and dynamic binding.                  |   |  |  |  |
|  | CO4    | Apply Inheritance, Abstract Class and Interface to implement scenario. |   |  |  |  |
|  | CO5    | Apply c  | oncept of multithreading and exception handling for a scenario. |  |  |  |

| Exp. No.    | Experiment Details  | Ref.  | Marks |  |
|-------------|---|-------|-------|--|
| 1           | Program on I/O using command line arguments, scanner class, | 1,2   | 5     |  |
|             | BufferedReader etc.   |       |       |  |
| 2           | Program on Constructor.                                     | 1,2,3 | 5     |  |
| 3           | Program on Polymorphism, Run time polymorphism.             | 1,2   | 5     |  |
| 4           | Program on Inheritance, Abstract Class, Interface.          | 1,2   | 5     |  |
| 5           | Program on Nested Class, Aggregation, Composition.          | 1,2,3 | 5     |  |
| 6           | Program on Multithreading.                                  |       | 5     |  |
| 7           | Program on String and Exception Handling.                   | 1,2   | 5     |  |
| 8           | Program on Package and access modifiers.                    | 1,2   | 5     |  |
| Total Marks |   |       |       |  |

## **References:**

- [1] Ralph Bravaco , Shai Simoson , "Java Programing From the Group Up" ,Tata McGraw-Hill.
- [2] Herbert Schildt, "Java The Complete Reference", Tata McGraw-Hill.
- [3] Jaime Nino, Frederick A. Hosch, 'An introduction to Programming and Object Oriented Design using Java', Wiley Student Edition.
- [4] C Xavier, "Java Programming A Practical Approach", Tata McGraw-Hill.