**Lab Index Sheet**

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|  | Date | Title | Attendance/Conduct of lab (10 marks) | Journal (10 marks) | Page no. | Sign |
| 1 | 10-11-22 | Identifying the Requirements from Problem Statements Requirements | Characteristics of Requirements | Categorization of Requirements | Functional Requirements | Identifying Functional Requirements. |  |  |  |  |
| 2 | 17-11-22 | Modeling UML Use Case Diagrams and Capturing Use Case Scenarios Use case diagrams | Actor | Use Case | Subject | Graphical Representation | Association between Actors and Use Cases | Use Case Relationships | Include Relationship | Extend Relationship | Generalization Relationship | Identifying Actors | Identifying Use cases | Guidelines for drawing Use Case diagrams. |  |  |  |  |
| 3 | 24-11-22 | E-R Modeling from the Problem Statements Entity Relationship Model | Entity Set and Relationship Set | Attributes of Entity | Keys | Weak Entity | Entity Generalization and Specialization |ER Diagram | Graphical Notations for ER Diagram | Importance of ER modeling. |  |  |  |  |
| 4 | 19-1-23 | Design a relational database for an application involving at-least 5 tables and build GUI using Java-Swing/Web/any other… to perform functional operations of the application. |  |  |  |  |
| 5 | 2-12-22 | Statechart and Activity Modeling Statechart Diagrams | Building Blocks of a Statechart Diagram | State | Transition | Action | Guidelines for drawing Statechart Diagrams | Activity Diagrams | Components of an Activity Diagram | Activity | Flow | Decision | Merge | Fork | Join | Note | Partition | A Simple Example | Guidelines for drawing an Activity Diagram. |  |  |  |  |
| 6 | 8-12-22 | Modeling UML Class Diagrams and Sequence diagrams Structural and Behavioral aspects | Class diagram | Elements in class diagram | Class | Relationships | Sequence diagram | Elements in sequence diagram | Object | Life-line bar | Messages |  |  |  |  |
| 7 | 29-12-22 | Modeling Data Flow Diagrams Data Flow Diagram | Graphical notations for Data Flow Diagram | Explanation of Symbols used in DFD | Context diagram and leveling DFD. |  |  |  |  |
| 8 | 12-1-23 | Design develop a code and run the program in any suitable language to implement the Binary Search algorithm. Determine the basis path and using them derive different test Cases execute these test Cases and discuss the test result. |  |  |  |  |
| **AVERAGE MARKS** | | |  |  |  |  |