**OBJECT ORIENTED ANALYSIS AND DESIGN(OOAD) LAB**

**(PROFESSIONAL ELECTIVE - II)**

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| **III B. TECH- II SEMESTER:** | | | | | | | | |
| **Course Code:** | **Category** | **Hours / Week** | | | **Credits** | **Maximum Marks** | | |
| A6DS26 | **PEC** | **L** | **T** | **P** | **C** | **CIA** | **SEE** | **Total** |
| 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| **Contact Classes:** | **Tutorial Classes:** | **Practical Classes:** | | | | **Total Classes:** | | |
| **COURSE OBJECTIVES**   1. To capture the requirements specification for an intended software system 2. To draw the UML diagrams for the given specification 3. To map the design properly to code 4. To test the software system thoroughly for all scenarios 5. To improve the design by applying appropriate design patterns.   **COURSE OUTCOMES**  **At the end of the course, student will be able to:**   1. Develop a working understanding of formal object-oriented analysis and design processes 2. Develop an appreciation for and understanding of the risks inherent to large-scale software development 3. Learn (through experience!) techniques, processes, and artifacts that can mitigate these risks 4. Develop the skills to determine which processes and OOAD techniques should be applied to a given project, and 5. Develop an understanding of the application of OOAD practices from a software project management perspective | | | | | | | | |
| **LIST OF EXPERIMENTS** | | | | | | | | |
| **WEEK-1** |  | | | | | | | |
| Write Problem Statement for System / Project (ATM Class Diagram) | | | | | | | | |
| **WEEK-2** |  | | | | | | | |
| Prepare a use case model, from the given description using UML 2 notations. Pass port Automation | | | | | | | | |

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| **WEEK-3** |  | **Classes:** |
| Prepare Activity Model from the given description using UML 2 notations. Book Bank System | | |
| **WEEK-4** |  | **Classes:** |
| Prepare a class diagram from the given problem description using UML2.0 and Implement the class diagram with a suitable object oriented language. | | |
| **WEEK-5** | | |
| Prepare a Design Model from an Analysis Model. | | |
| **WEEK-6** | | |
| Prepare a Sequence diagram from the given problem description using UML2.0 and Implement the Sequence diagram with a suitable object oriented language. (Stock Maintanence) | | |
| **WEEK-7** | | |
| Prepare a state model from the given problem description, draw a state diagram using UML2 notations and Implement the state model with a suitable object oriented language. (Student Information System) | | |
| **WEEK-8** | | |
| Identification and Implementation of GRASP pattern. | | |
| **WEEK-9** | | |
| Identification and Implementation of GOF pattern. | | |
| **WEEK-10** | | |
| Draw Component Diagram for Online Examination System.  Draw Component Diagram for Order Processing Application.  Draw Deployment Diagram for Online Student Admission System. | | |
| **WEEK-11** | | |
| State Chart Diagram for Online Examination System.  State Chart Diagram for Online Fund Transfer through Netbanking Banking System. | | |
| **WEEK-12** | | |
| Activity Diagram Online Banking System.  Draw Activity Diagram for Online Examination System. | | |

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