SARDAR PATEL UNIVERSITY
Vallabh Vidyanagar
Programme & Subject : B.Sc. CA & IT
Semester – VI
US06DIIT28 : OOAD USING UML

(Syllabus Effective from June 2020)

Credits : 2   **External : 50 Marks**
Contact Hrs per Week : 2   **University Examination Duration: 2 Hrs**
All units carry equal weightage

Unit	Description in Detail
I	**Complexity** The inherent complexity of software, The Structure of complex systems, Bringing order to chaos, on designing complex systems, Categories of analysis and Design methods. **The Object Model** The evolution of object model, Elements of object model.
II	**Classes and Objects** The Nature of an Object, Relationship among objects, nature of a class, Relationship among classes. **Introduction to Modeling and UML** Importance of modeling, principles of modeling, object oriented modeling, overview of UML conceptual model of the UML, Architecture.
III	**Basic Structural Modeling** Common Mechanism: Terms and Concepts, Common modeling techniques. Diagrams, Class Diagrams. **Advanced Structural Modeling** Interfaces, Types and Roles, Packages, Object Diagrams.
IV	**Basic Behavioral Modeling** Interaction, Interaction diagram, Use case, Use case diagram. **Advanced BehavioralModeling** State Machines, State Diagrams. **Case Study** Any application can be discussed with help of an open tool. **Architectural Modeling** Deployment, Deployment Diagram, Collaboration

Basic Text and Reference Books:

1. Grady Booch, Robert A.Makimchul,MichaelW.EagelJimConallen,Kelli A. Houston, Object Oriented Analysis and Design with Applications, 3rd Edition, Pearson Education Inc,2013.
2. Grady Booch, James Rumbaugh, Ivar Jacobson, The Unified Modeling Language User Guide, 2nd Edition, Pearson Education Inc,2013.
3. Michael Blaha,JamesRumbaugh, Object Oriented Modeling and Design with UML, 2nd Edition, Pearson, 2010.