BEIT405T **OBJECT ORIENTED METHODOLOGY**
(Theory Credit: 05)

Teaching Scheme:	**Examination Scheme:**
Lecture: 4 Hours/week	**Theory: T (U): 80 Marks T (I): 20 Marks**
Tutorial: 1 Hour/week	**Duration of University Exam. : 03 Hours**

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UNIT I:
Introduction object-oriented development,Object Oriented Methodology, three Models, object oriented terms, object modeling Technique, object and classes links and associations, generalization and inheritance, grouping constructs a sample object module. Advanced object modeling; aggregation abstract classes, multiple, inheritance, metadata, candidate keys.

UNIT II:
Dynamic modeling, events and states, nested state diagrams, concurrency, advanced dynamic modeling concepts, functional models, data flow diagram, constraints, a sample functional module

UNIT III:
Design methodology overview of analysis, problem statement, ATM network, object modeling, various phases, dynamic modeling, various phases

UNIT IV:
System design, overview, sub systems, allocating subsystems, management of data stores, choosing software control, implementation, handling boundary condition

UNIT V:
Object design, overview, designing algorithms, design optimization, optimization of control, adjustment of inheritance, design of associations, object representation, physical packaging,

UNIT VI:
Implementation, programming languages, database systems, object oriented style, reusability, extensibility, robustness.

Text Books:

1. Object Oriented Modeling and Design by James Rumbaugh, Michal Blaba, William Premerlani, Frederic Eddy, William Lorerson, PHI, 1997
2. Object -oriented Programing Using C++ and Java by Ramesh Vasappanavar, Anand Vasappanavar , Gautam Vasappanavar, PEARSON, 2011

Reference Books:

1. Mastering C++ by A.R.Venugopal, Rajkumar, T. Ravishanker ,TMH, 1997.
2. Computer Science A Structured Approach Using C++ by Behrouz A. Forouzan , Richard F. Gilberg, Second Edition, CENGAGE Learning.
3. Object Oriented Programming with C++ by E Balagurusamy, Fifth Edition, TMH.

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