



Department of Computer Science, Gauhati University
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Syllabus for 1st Internal Exam of 3rd Semester, M.Sc.(CS/IT) for the subject
Distributed System (CSC3026/INF3026)

Unit-1: Introduction, Types of Distributed System, Need of a Distributed System, Advantages and Disadvantages, Challenges of designing DS, various transparency levels, Middleware, Mobile Code, Mobile Agents, CORBA architecture,

Unit-II: System Models, Architectural Models, Various architectural styles, Viz., Layered, Object based, Event based, Data centered styles, Fundamental Models (Interaction Model, Failure Model, Security Model), Various types of Interaction Models,

Unit-III: Need of Clock Synchronization, External and Internal Clock, External and Internal Clock, Perfect clock, Clock drift, Clock Skew, Physical Clocks and Logical Clocks, Atomic Time, Network Time Protocol, Cristian Clock, Berkeley Algorithm, Lamport's Logical Clock algorithm, restrictions in Lamport's Clock, Vector Clock

Unit-IV: introduction to Causal Ordering of messages, Difference between event and message ordering, types of protocols for message ordering, Birman-Schiper-Stephenson Protocol

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