

Distributed Computing

Importance

Module 1 - Introduction to Distributed Systems

Software Concept / Software Models
System model of Distributed System [Architecture Model ,
Interaction, Fault]
Issues & Goals in Designing Distributed System

Module 2 - Communication

RPC with working and semantic calls

Stream Oriented Communication + difference with Message oriented Communication

Module 3 - Synchronization

Raymond Tree

Election Algorithm (Bully)
Richart Agarwala / Distributed System algorithm Mutual Exclusion
Logical clock + Lamport Logical Clock

Module 4 - Resource and Process Management

Load balancing Approach + Load sharing difference
Code Migration + Issues
Features of Global Scheduling Algorithm
Difference Between Job Scheduling and Load Balancing + Issues in
Design Load Balancing algorithm

Module 5 - Consistency, Replication and Fault Tolerance

Client Centric Consistency Model
Data Centric Consistency Model
Difference between Client Centric and Data Centric Consistency
Model



Module 6 -

Distributed File System and Desirable features of Good distributed File System.

File Caching Schema
NFS (Network File System)

Extra Question

Barkleys Physical Clock (Mod-3)

Suzuki kasami Algorithm (Mod-3)

Andrew File System (Mod-6)

File Accessing Model (Mod-6)

Modes of Middleware (Mod-1)

Process Migration + Roles of resources to process resource Binding (Mod-4)