05 1X15 DISTRIBUTED COMPUTING Credit : 5

1. Fundamentals : Definition Evaluation of distributed Computing System, Distributed Computer System Models.

Distributed Operating System Designing a distributed Operating System, Introduction of distributed computing environment. Lecture : 5

2. Massage Passing : Introduction, Design features, Issues in IPC by message passing, synchronization

Buffering, Multidiagram messages, encoding and decoding message data. Lecture : 4

3. Remote Procedure Calls : Introduction, The RPC Model. Transparency of RPC. Implementing RPC

mechanism RPC messages server management, parameter- passing and call semantic, Communication protocols for

RPC's. Lecture : 10

4. Distributed Shared Memory : Introduction. Architecture of DSM Systems Design and implementation,

granularly, Structure shared memory space Consistency models, replacement strategy, Thrashing. Lecture : 9

5. Resource Management : Desirable feature, Task assignment approach, Loadbalancing approach, Load- sharing approach. Lecture : 4

6. Process Management : Process Migration, Threads Lecture : 2

7. Distributed File System : Intake, Desirable features, File model, File accessing models, File-sharing semantic,

File-catching schemes, File replication, Fault tolerance, Automatic transactions, Design principle. Lecture : 8 Text Book:

1. Distributed Computing by Liu. Pearson Education.

2. Distributed Computing by Hagit Attiya and Jennifer Welch, Wiley India.

3. Distributed Operating Systems : Concept and Design by P.K. Sinha, PHI

4. Distributed Operating System by Tenenbaum. Pearson Education