COURSE PLAN
Bakhtiyarpur College of Engineering Bakhtiyarpur

Academic Session	:	2020-2021(Odd Semester)	**Semester**	:	7th
Branch	:	CS	**Name of Subject**	:	Distributed Computing
Course	:	B.Tech.	**Subject Code**	:	**051715**
Groups	:	CS-71	**Name of Faculty Member** :		Ajeet Kumar

Lecture No.	Topics to be covered	Planned Date of Completion	Book and page no.
Unit-I Introduction to Distributed Systems			
1	Distributed System and its Type		R1:1-3/R2:1-3
2	Design Issues of distributed system		R1:19-34/R2:22-31
3	Architecture for Distributed System		NOTES
4	Goals of Distributed system		R1:12-16/ R2:3-5
5	Hardware concepts		R2:8-15
6	Software concepts		R2:15-22
7	Distributed Computing Model		R1:5-12
8	Advantages & Disadvantage of DS		R2:6-8
9	Distributed Vs Centralized Systems		NOTES
Unit-II Distributed Share Memory and Distributed File System			

10	Distributed Shared Memory		R2:289-292/ R1:421-423
11	DSM Architecture & its Types		R2:292-312/ R1:231-234
12	Design & Implementations issues of DSM		R1:234-235
13	Structure of Share Memory Space		NOTES/ R1:237
14	Consistency Model ,Thrashing		R2:315-331/ R1:238-265
15	File Model, File Service Architecture		R1:426
16	File Accessing Model		R2:246-251/ R1:427-430
17	File Sharing Semantics		R2:253-256/ R1:430-433
18	File Caching Scheme, Fault tolerance		R2:262-285/ R1:433-440
19	Naming, System Oriented Names		R2:251-252/ R1:496-511
20	Object Locating Mechanism, Human Oriented Name.		NOTES/R1:512-515
Unit-III Inter Process Communication and Synchronization			
21	Data Representation & Marshaling		NOTES/R1:177
22	Group Communication		R2:99-115
23	Client Server Communication		R2:50-55
24	RPC- Implementing RPC Mechanism		R2:65-72/ R1:171-173
25	Stub Generation, RPC Messages		R2:68-82/ R1:174-177
26	Synchronization, Clock Synchronization		R2:118-133/ R1:283-291
27	Mutual Exclusion		R2:134-140/ R1:299-304
28	Election Algo. (Bully and Ring)		R2:140-143 R1:332-336
Unit-IV Distributed Scheduling and Deadlock			

29	Distributed Scheduling-Issues in Load Distributing		R1:347-350
30	Components for Load Distributing Algorithms		R1:351-367
31	Different Types of Load Distributing Algorithms		NOTES
32	Task Migration and its issues		R1:381-414
33	Deadlock detection and Resolutions		R2:158-163/R1:320-330
34	Deadlock Handling Strategy		R2:163-163,312-316
35	Distributed Deadlock Algorithms		NOTES
Unit-V Distributed Multimedia & Database System			
36	Distributed Data Base Management System(DDBMS) and Types of Distributed Database		NOTES
37	Characteristics of multimedia Data and Quality of Service Management		NOTES
38	Case Study of Amoeba		R2:376-407 R1:642-658
39	Case Study of Mach		R2:431-469,R1:674-695
40	Case Study of Chorus		R2:475-510 R1:695-712

No. of Proposed Lectures: 40

Teacher's Assessment:

Name of the Activity:	Marks Allotted to Each Activity:	Date of Completion:
1. Special Quiz	05	19th September 2020
2. Assignment	10	10th October 2020
3. Class Notes	**05**	**11st November 2020**

References Books

- R1: Pradeep K.Sinha, Distributed Operating System Concept & Design, PHI
- R2: Andrew S Tanenbaum, Distributed Operating System, Pearson
- R3:Singhal and Shivaratri, Advance Concept in Operating System, McGraw Hill

List of Books

- Sinha, Distributed Operating System Concept & Design, PHI
- Coulouris & Dollimore, Distributed System Concepts and Design, Pearson Pub
- Singhal & Shivratari, Advance Concept in Operating System, McGraw Hill
- Attiya & Welch, Distributed Computing, Wiley Pub.

Evaluation Scheme:
- **Mid-Sem Test:**
  No. Test   **-**   1
  Marks   **-**   20 marks
  Type of Question Paper **-**   Subjective and Objective Question
  Guidelines   **-**   General University Test Guidelines

- **Teacher Assessment**
  No. of Teacher Assessment   **-**   **3**
  1. Special Quiz (5 marks)   **-**   5 Objective Type Questions of 1 marks each and will be conducted in class.
  2. Assignment (10 marks)   **-**   At least 10 Questions out of 20 of 1 mark each should be solved by students.
  3. Class Notes (5 marks)   **-**   Class Notes of Student will be submitted till 14th week of the semester and checked (parameter Content & clearness etc.) by subject teacher.

Contact Address:
Mobile No: 9027458163
Email: azit.bce@gmail.com
Room No. Computer Lab