LESSON PLAN

Subject: - OPERATING SYSTEM (BCA 4TH Semester C) BCA-402

Faculty Name: - Mr. kamal nain

DETAILED COVERAGE OF SYLLABUS

S. no	Day	Topic/Presentation /Activity	Reference (Book Page No.)
Unit-I (Introduction to Data Structure and its Characteristics Array)			
1	D 1	Introduction of operating system (L1)	
2	D 2	Simple Batch Systems (L2)	
3	D 3	Multi- programmed Batch system (L3)	
4	D 4	**Tutorial 1 (L1+L2+L3) Activity: Think, pair and share**	**Think, pair and share**
5	D 5	Time- Sharing Systems, Personal- Computer Systems, Tri diagonal matrices with Vector Representation also, Parallel systems, Distributed systems (L4)	
6	D 6	Real- Time Systems. Memory Management: Background, Logical versus physical Address space, Swapping, Contiguous allocation, Paging, Segmentation Virtual Memory (L-5)	
7	D 7	Demand Paging, Page Replacement, Page- replacement Algorithms, Performance of Demand Paging.(L-6)	
8	D 8	**Tutorial 2 (L4+L5+L6)**	**Problems Discussion/Presentation**
Unit-2 (Processes)			
9	D 9	Process Concept, Process Scheduling, Operation on Processes (L-7)	
10	D 10	Operation on Processes (L-8)	
11	D 11	Process Scheduling, Operation on Processes, Scheduling Criteria. (L-9)	
12	D 12	**Tutorial 3 (L7+L8+L9) Activity: Buzz session**	**Buzz session**
13	D 13	Scheduling Criteria, Scheduling Algorithms, Multiple - Processor Scheduling. (L-10)	

14	D 14	Background, The Critical - Section Problem, Synchronization Hardware, Semaphores (L-11)	
15	D 15	Classical Problems of Synchronization (L-12)	
16	D 16	**Tutorial 4 (L10+L11+L12) Activity: Buzz session**	**Buzz session**
Unit - 3 Deadlocks			
17	D 17	System Model(L13)	
18	D 18	Deadlock Characterization (L14)	
19	D 19	Methods for Handling Deadlocks (L-15)	
20	D 20	**Tutorial 5 (L13 +L14+L15) Activity: Group Discussion on Problems**	
21	D 21	Deadlock prevention (L-16)	
22	D 22	Deadlock Avoidance, Deadlock Detection (L-17)	
23	D 23	Recovery from Deadlock. (L-18)	
24	D 24	**Tutorial 6 (L16+L17+L18) Activity: Group Discussion on Problems**	**Problems Discussion/Presentation**
UNIT-4 (Device Management)			
25	D 25	Dedicated Devices (L19)	
26	D 26	Shared Devices, Virtual Devices;(L20)	
27	D 27	Input or Output Devices, Storage Devices (L21)	
28	D 28	**Tutorial 7 (L19+L20+L21) Activity: Oral Test**	**Oral Test**
29	D 29	Buffering, Secondary Storage (L22)	
30	D 30	Disk Structure, Disk Scheduling (L23)	
31	D 31	Disk Management, Swap- Space Management, Disk Reliability (L24)	

32	D 32	**Tutorial 8 (L22+L23+L24) Activity: Oral Test**	**Problems Discussion/Presentation**
UNIT-5 (Introduction, A Simple File system)			
33	D 33	General Model of a File System(L-25)	
34	D 34	Symbolic File System, Basic File System (L26)	
35	D 35	Access Control Verification, Logical File System (L27)	
36	D 36	**Tutorial 9 (L25+L26+L27) Activity: Frequently Ask Questions**	**Complete Syllabus**
37	D 37	System Interface; File Concept, Access Methods, Directory Structure, Protection (L28)	
38	D 38	Consistency Semantics File - System Implementation: File-System Structure (L29)	
39	D 39	Allocation Methods, Free- Space Management(L-30)	
40	D 40	**Tutorial 10 (L28+L29+30) + Completed Courses Revision**	**Problems Discussion/Presentation**

Referential Books:

1. Silbersachatz and Galvin, " Operating System Concepts", Person, 5th Ed. 2001
2. Madnick E., Donovan J., " Operating Systems:,Tata McGraw Hill,2001
3. Tannenbaum, "Operating Systems", PHI, 4th Edition, 2000