Lesson Plan

Name of Faculty: Ms. Varsha Rani, Assistant Professor of CSE

Discipline: **Computer Science and Engineering**

Semester: **6th (EVEN)**

Subject: **Principle of Operating systems (CSE-301-L)**

Lesson Plan Duration: 15 weeks (from Jan to May 2021)

Work Load (Lecture/Practical) per week (in hours):   **Lectures-03hours, Practical-02 hours**

Week	Theory		Topic Covered Date and Remarks		
	Lecture Day	Topic (Including Assignment/Test)	Date	HOD	Director-Principal
1st	1	Concepts: Operating systems functions and characteristics			
	2	Concepts: Operating systems functions and characteristics			
	3	Operating system services and systems calls			
	4	Operating system services and systems calls			
2nd	5	System programs			
	6	Operating system structure			
	7	Operating systems generation			
	8	Operating system services and systems calls			
3rd	9	Types of OS: Batch& Multiprogramming operating system			
	10	Time-sharing OS , Distributed Operating system,			
	11	Online &Real-time systems.			
	12	Query and Solution			
4th	13	File Systems: Types of Files and their access methods			
	14	File allocation methods			
	15	Directory Systems: Structured organization,			
	16	Directory and file protection mechanisms			
5th	17	Disk scheduling and its associated algorithms			
	18	Disk scheduling and its associated algorithms			
	19	Processes: Process concept, Process Control Block,			
	20	Operations on processes, Cooperating processes			
6th	21	CPU scheduling: Levels of Scheduling, scheduling criteria			
	22	CPU scheduling: Levels of Scheduling, scheduling criteria			
	23	Comparative study of scheduling algorithms			
	24	Algorithm evaluation, Multiple processor scheduling			
7th		**1st Minor Test**			
8th	25	Process Synchronisation: Critical-section problem			
	26	Critical-section problem, Semaphores			
	27	Query and Solution			
	28	Storage Management: Storage allocation methods			
9th	29	Storage Management: Storage allocation methods			
	30	Single contiguous allocation			
	31	Non-contiguous memory allocation			
	32	Query and Solution			
10th	33	Paging and Segmentation techniques			
	34	Segmentation with paging			
	35	Virtual memory concepts			
	36	Demand Paging			
11th	37	Page-replacement Algorithms &Belady Anomalies			
	38	Thrashing and Recovery Techniques			
	39	Thrashing and Recovery Techniques			
	40	Query and Solution			
12th	41	Deadlock: System model, Deadlock characterization,			
	42	Methods for handling deadlocks, Deadlock prevention,			
	43	Deadlock avoidance, Deadlock detection,			
	44	Recovery from deadlock			
13th	45	Case Studies			
	46	Comparative study of WINDOW			
	47	Comparative study of UNIX			
	48	Comparative study of LINUX			

14th			**2nd Minor Test**		
15th	49	WINDOW			
	50	UNIX			
	51	LINUX			
	52	Query and Solution			