LECTURE PLAN

Name of the Faculty: Er. Deepti Gupta

Discipline : CSE Semester :6th

Subject : Operating System(PC-CS-206A)

Lesson Plan Duration: 15 weeks (Feb-May 2024)

** Work (03 Lecture) per week (In Hours): Lecture -03

Week	Theory		Practical	
	Lecture	Topic (including	Practical Day	Торіс
	Day	assignment/ test)		
1 st	1st	Introduction to OS, Operating system functions: Resource management	1 st	Simulation of the CPU scheduling algorithms a) Round Robin b) SJF c) FCFS d)
	2nd	Operating system functions: process, storage management		Phonty
	3rd	Operating system functions memory, security and privacy		
2nd	4th	Different types of O.S: batch process, multi-programmed	2nd	Program for paging techniques of memory management.
	5th	Different types of O.S: time-sharing, real-time.		
	6th	Different types of O.S: time-sharing, real-time,		
3rd	7th	Operating system services and system calls	3rd	Program for page replacement algorithms
	8th	Computer system operations		
	9th	I/O structure, preemptive and non-preemptive scheduling		
4th	10 th	storage structure, storage hierarchy, different types of	4th	Simulation of Bankers Deadlock Avoidance and

		protections		Prevention algorithms.
	11 th	operating system		
		structure. O/S		
		services		
	12 th	Scheduling criteria, Scheduling		Program for Implementation of
		algorithms:		System Calls.
		FCF5,5JF		
5th	13 th	Scheduling	5th	Program for File Permissions
		Priority scheduling		C
	14 th	Priority scheduling:		
		Non-Preemptive		
	15th	Revision for		
		sessional		
6th	16th	Sessional 1	6th	Program for File Operations
om	1000	Sessional 1	oui	riogram for the Operations.
	17th	Sessional 1		
	18th	Algorithm		
		evaluation, multi-		
		processor		
		scheduling.		
7th	19th	Threads: overview,	7th	Program for File Copy and
		benefits of threads		Move.
	20 th	User and kernel		
		threads.		
	21st	Process		
		Management:		
		Concept of		
Qth	22nd	Process states	8th	Program for Dining
oui	22110	process control,	oui	Philosophers Problem
		co-operating processes		
	23rd	Process		
		management: inter-		
		process		
		communication.		

	24th	Process		
		Synchronization:		
		background,		
		critical section		
		problem		
9th	25th	Critical region,	9th	Program For Producer –
		synchronization		Consumer Problem concept.
		hardware, Classical		
		problems		
		synchronization,		
		semaphores.		
	26 th	Deadlocks:	-	
		Concept of		
		deadlock		
	27 th	Deadlock		
		characterization,		
		prevention : Mutual		
		Exclusive		
		Condition		
10th	28th	Hold and Wait,	10th	Program for disk scheduling
		Circular wait		algorithms.
	2041	No-preemption	-	
	29th	Deadlock		
		avoidance Banker's		
		Algorithm.		
	30th	Deadlock detection		
		Recovery from		
		deadlock		
11th	31st	Sessional 2	11th	Viva Voce
	32nd	Sessional 2		
	33rd	Memory		
	coru	Management:		
		background,		
		logical vs. physical		
		address space		
12 th	34 th	Contiguous	12 th	Viva Voce
		memory allocation,		
	35 th	segmentation		
	30			
		segmentation with		
		paging.		

	36 th	Concept of		
		fragmentation.		
13th	37 th	Virtual	13th	Viva Voca
15	57	Memory:backgroun	15	viva voce
		d, demand paging,		
		concept of page		
-	29th	replacement		
	30-	page replacement		
		algorithms,		
		anocation of		
		frames, thrashing.		
	39 th	File Systems: file		
		concept, file		
		organization and		
		access methods,		
		allocation methods,		
		directory structure,		
		free-space		
		management		
1 4th	Anth	I/O Managamanti	1 Ath	X7• X7
14 th	40 th	I/O Management: I/O hardware.	14 th	Viva Voce
14 th	40 th	I/O Management: I/O hardware, polling, interrupts,	14 th	Viva Voce
14 th	40 th	I/O Management: I/O hardware, polling, interrupts, DMA	14 th	Viva Voce
14 th	40 th 41st	I/O Management: I/O hardware, polling, interrupts, DMA kernel I/O subsystem	14 th	Viva Voce
14 th	40 th	I/O Management: I/O hardware, polling, interrupts, DMA kernel I/O subsystem (scheduling,	14 th	Viva Voce
14 th	40 th 41st	I/O Management: I/O hardware, polling, interrupts, DMA kernel I/O subsystem (scheduling, buffering, caching,	14 th	Viva Voce
14 th	40 th	I/O Management: I/O hardware, polling, interrupts, DMA kernel I/O subsystem (scheduling, buffering, caching, spooling and device	14 th	Viva Voce
14 th	40 th 41st	I/O Management: I/O hardware, polling, interrupts, DMA kernel I/O subsystem (scheduling, buffering, caching, spooling and device reservation)	14 th	Viva Voce
14 th	40 th 41st 42nd	I/O Management: I/O hardware, polling, interrupts, DMA kernel I/O subsystem (scheduling, buffering, caching, spooling and device reservation) Disk Management: disk structure_disk	14 th	Viva Voce
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Prepared By:

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Assistant Professor

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