

Dicipline:	CSE	Semester: 4th	Name of the Teaching Faculty: Amitav Parida	
Subject: Operating System	No of Days/Week Class Allotted: 4	Semester From date: 13-02-23 To date: 23-05-23	No. of Weeks: 19	
WEEK	Class Day	Theory Topics		
1	1st	Introduction to operating System		
	2nd	Evaluation of operating System		
	3rd	function of OS		
	4th	Sturture of operating System		
	5th			
2	1st	Different types of operating System		
	2nd	Difference between process and program Introduction to process Management		
	3rd	States of a process: New, Ready		
	4th	Running, Waiting, Terminated		
	5th			
3	1st	Interprocess Communication, Message passing		
	2nd	shared Memory Communication		
	3rd	Implementation of a process & it's		
	4th	Medium term Scheduler, short term Scheduler, long term Scheduler		
	5th			

WEEK	Class Day	Theory Topics
4	1st	process scheduling
	2nd	job scheduling
	3rd	first come first serve scheduling Algorithm shortest job first, Round Robin scheduling
	4th	process synchronization
	5th	
5	1st	Travel salesman problem
	2nd	Semaphore, counting Semaphore
	3rd	Binary Semaphore
	4th	principle of concurrency, SJF (Revise)
	5th	
6	1st	priority scheduling, SRTF Scheduling
	2nd	Introduction to Memory management
	3rd	Memory allocation technique
	4th	fixed size partitioning
	5th	

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WEEK	Class Day	Theory Topics		
7	1st	Variable Size partitioning		
	2nd	Contiguous Memory Allocation		
	3rd	problems of internal fragmentation		
	4th	External fragmentation Concept		
	5th			
8	1st	Non Contiguous Memory allocation		
	2nd	Degree of Multiprogramming		
	3rd	Segmentation		
	4th	paging, page table Concept		
	5th			
9	1st	fragmentation		
	2nd	Comparison of paging and fragmentation		
	3rd	Swapping Concept		
	4th	page fault Algorithm		
	5th			

WEEK	Class Day	Theory Topics
10	1st	Inverted paging
	2nd	page replacement techniques
	3rd	Demand paging
	4th	page fault handling
	5th	
4	1st	Techniques for device Management
	2nd	Dedicated, shared and virtual Memory Management
	3rd	Device allocation Considerations I/O traffic Control, I/O device Handlers
	4th	Spooling of devices
	5th	
12	1st	Concept of deadlock
	2nd	System model, deadlock detection
	3rd	Resource Allocation Graph (RAG)
	4th	Single RAG, Multiple RAG
	5th	

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WEEK	Class Day	Theory Topics		
13	1st	Method of Deadlock handling		
	2nd	Recovery from deadlock		
	3rd	Prevention of deadlock		
	4th	Explain Bankers Algorithm		
	5th			
14	1st	Safety Algorithm, file organization introduction, structure of file		
	2nd	file access methods		
	3rd	Random access method, index access method		
	4th	Random Sequential access Method		
	5th			
15	1st	file systems, file reliability		
	2nd	Allocation of Disk Space		
	3rd	file protection, secondary Storage Management		
	4th	Concept of System programming		
	5th			

WEEK	Class Day	Theory Topics
16	1st	Compiler and it's function
	2nd	Difference between Interpreter & Compiler.
	3rd	phases of Compiler
	4th	Lexical analysis phase of Compiler
	5th	
17	1st	Syntax analysis phase of Compiler
	2nd	Interpretation analysis phase of Compiler.
	3rd	Optimisation phase and table
	4th	Code generation phase, MCQ discussion of first chapter.
	5th	
18	1st	MCQ discussion on process Management - 1
	2nd	MCQ discussion on process Management - 2
	3rd	MCQ discussion on deadlock - 1
	4th	MCQ discussion on deadlock - 2
	5th	

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WEEK	Class Day	Theory Topics		
19	1st	MCQ discussion on Memory Management.		
	2nd			
	3rd			
	4th			
	5th			
	1st			
	2nd			
	3rd			
	4th			
	5th			
	1st			
	2nd			
	3rd			
	4th			
	5th			

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