

CSE	Semester: 4th	Name of the Teaching Faculty	
Operating System	No of Days/Week Class Allotted: _____	Semester From date: _____ To date _____	No. of Weeks: _____

K	Class Day	Theory Topics
	1st	Introduction to operating system.
	2nd	Evolution of operating system
	3rd	Function of OS
	4th	Structure of operating system
	5th	Different types of operating system.
	1st	Difference between process and program Introduction to process management.
	2nd	States of a process; New, Ready
	3rd	Running, <del>wait</del> waiting, Terminated.
	4th	Interprocess communication; Message passing
	5th	Shared memory communication.
	1st	Implementation of a process & its issues
	2nd	Medium term scheduler, Short term scheduler, Long term scheduler
	3rd	Process scheduling
	4th	Job scheduling
	5th	First come first serve scheduling Algorithms Shortest job first, Round-robin scheduling

# Theory Topics

WEEK	Class Day	Topic
5.	1st	process Synchronization
	2nd	Travel salesman problem
	3rd	Semaphore, counting Semaphore.
	4th	Binary Semaphore.
	5th	Principle of concurrency, SJF (REVERSE)
	1st	Priority Scheduling, SRTF Scheduling
	2nd	Introduction to memory management.
	3rd	Memory allocation technique.
	4th	Fixed size partitioning
	5th	Variable size partitioning
	1st	Contiguous Memory Allocation
	2nd	Problems of internal fragmentation
	3rd	External fragmentation concept.
	4th	
	5th	

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Line:	Semester:	Name of the Teaching Faculty	
Subject:	No of Days/Week Class Allotted: _____	Semester From date: _____ To date _____	No. of Weeks:
WEEK	Class Day	Theory Topics	
06 24	1st	Non contiguous memory allocation	
	2nd	Degree of Multiprogramming	
	3rd	Segmentation	
	4th		
	5th		
7 4	1st	Paging, page table concept-	
	2nd	Fragmentation	
	3rd	Comparison of paging and	
	4th	fragmentation	
	5th		
	1st	Swapping concept.	
	2nd	page fault Algorithm	
	3rd	Inverted paging	
	4th	page replacement techniques.	
	5th		

Class Day	
1st	Demand paging
2nd	Page-fault handling
3rd	Techniques for Device management
4th	Dedicated, shared and virtual memory management
5th	Device allocation considerations I/O traffic control, I/O device handlers.
1st	Spooling of devices
2nd	concept of deadlock
3rd	System model, deadlock detection
4th	Resource Allocation Graph (RAG)
5th	Single RAG, multiple RAG
1st	Methods of deadlock handling
2nd	Recovery from deadlock
3rd	prevention of deadlock
4th	Explain Banker's Algorithm
5th	Safety Algorithm, file organization introduction, structure of file

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19.	
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OS		Semester:	Name of the Teaching Faculty	
Class Day		No of Days/Week Class Allotted: _____	Semester From date: _____ To date _____	No. of Weeks:
<b>Theory Topics</b>				
1st	File access methods			
2nd	Random access method, index access method			
3rd	Random sequential access method.			
4th	File systems, file reliability			
5th	Allocation of disk space,			
1st	file protection, Secondary storage management.			
2nd	concept of system programming.			
3rd	compiler and its functions			
4th	Difference between Interpreter & compiler.			
5th	phases of compiler			
1st	Lexical analysis phase of compiler			
2nd	Syntax analysis phase of compiler			
3rd	Interpretation analysis phase of compiler.			
4th	optimisation phase and table.			
5th	code generation phase, MCQ discussion of first chapter			

### Theory Topics

Class Day	Topic
1st	MCA discussion on process management -1
2nd	MCA discussion on process management -2
3rd	MCA discussion on deadlock -1
4th	MCA discussion on deadlock -2
5th	MCA discussion on memory management
1st	
2nd	
3rd	
4th	
5th	
1st	
2nd	
3rd	
4th	
5th	