

Lesson Plan

Name of Faculty : Guest Faculty-1
 Discipline : Computer Engg.
 Semester : 3rd
 Subject : Operating System
 Lesson Plan Duration : 15 Weeks (from July-2018 to Dec-2018)
 Work Load (Lecture / Practical) per Week (in h) : Lecture - 4 Practical - 3

Week	Theory		Practical	
	Lecture Day	Topic (including assignment/test)	Practical Day	Topic
1"	1st	1. Overview of Operating Systems:- Definition of Operating Systems, Types of Operating Systems	1st	1. Demonstration of all the controls provided in windows control panel.
	2nd	Operating System Services	2nd	
	3rd	User operating system interface	3rd	
	4th	Revision	4th	
2"	5th	System Calls, Types of System Calls	5th	2. Exercise on Basics of windows.
	6th	System Programs	6th	
	7th	Operating System Structure	7th	
	8th	Virtual Machine, Benefits of Virtual Machine	8th	
3"	9th	Test	9th	Practice of above programes And File Checking
	10th	2. Process Management (Principles and Brief Concept):- Process concept, Process State, Process Control Block	10th	
	11th	Scheduling Queues, Scheduler, Job Scheduler	11th	
4"	12th	Process Scheduler, Context Switch, Operations on Processes	12th	3. Installation of Linux Operating System
	13th	Interprocess Communication, Shared Memory Systems, Message-Passing Systems	13th	
	14th	CPU Scheduler, Scheduling Criteria	14th	
	15th	Scheduling Algorithms	15th	
5"	16th	Preemptive and Non Preemptive	16th	4. Usage of directory management commands of Linux: ls, cd, pwd, mkdir, rmdir
	17th	First come first serve (FCFS), Shortest Job first (SJF)	17th	
	18th	Round Robin (RR), Multiprocessor scheduling,	18th	
	19th	Process Synchronization.	19th	
6"	20th	Test	20th	Practice of above programes And File Checking
	21st	3. Deadlocks (Principles and Brief Concept) :- Deadlock, Conditions for Dead lock	21st	
	22nd	Methods for handling deadlocks	22nd	
	23rd	Dead Prevention	23rd	
7"	24th	Deadlock Avoidance, Deadlock detection	24th	5. Usage of File Management commands of Linux: cat, chmod, cp, mv, rm, pg, more, find
	25th	Recovery from deadlock	25th	
	26th	Test	26th	
	27th	4. Memory Management Function (Principles and Brief Concept) :- Definition – Logical and Physical address Space	27th	
8"	28th	Swapping, Memory allocation,	28th	6. Use the general purpose commands of Linux: wc, od, lp, cal , date, who, whoami
	29th	Contiguous Memory allocation	29th	
	30th	Fixed and variable partition	30th	
	31st	Internal and External fragmentation and Compaction	31st	
9"	32nd	Paging – Principle of operation	32nd	7. Using the simple filters: pr, head, tail, cut, paste, nl, sort
	33rd	Page allocation, Hardware support for paging	33rd	
	34th	Protection and sharing, Disadvantages of paging,	34th	
	35th	Segmentation	35th	
10"	36th	Virtual Memory	36th	8. Communication Commands: news, write, talk, mseg, mail, wall
	37th	Test	37th	
	38th	5.I/O Management Functions (Principles and Brief Concept):- Dedicated Devices , Shared Devices	38th	
	39th	I/O Devices	39th	
11"	40th	Storage Devices	40th	Practice of above programes And File Checking
	41st	Buffering, Spooling.	41st	
	42nd	Test	42nd	
	43rd	6.File Management (Principles and Brief Concept):- Types of File System	43rd	
	44th	Simple file system, Basic file system	44th	9. Write a shell program that finds the factorial of a number.
				10. Write a shell program that finds whether a given number is prime or not

12"	45th	Logical file system, Physical file system	45th	number is prime or not.
	46th	Various Methods of Allocating Disk Space	46th	Practice of above programes And File Checking
	47th	Test	47th	
	48th	7. Linux Operating System:- History of Linux and Unix, Linux Overview, Structure of Linux	48th	11. Write a shell program to find the average of three numbers.
13"	49th	Linux releases, Open Linux, Linux System Requirements	49th	12. Write a shell program that will convert all the text of the file from lowercase to uppercase.
	50th	Linux Commands and Filters: mkdir, cd,rmdir,pwd, ls, who, whoami, date, cat,chmod, cp	50th	
	51st	mv, rm,pg,more, pr, tail, head, cut, paste	51st	
	52nd	, nl, grep, wc, sort, kill, write, talk,mseg,wall, merge,mail	52nd	
14"	53rd	news Shell: concepts of command options, input, output,redirection,pipes,	53rd	Practice of above programes And File Checking
	54th	redirecting and piping with standard errors	54th	
	55th	Shell scripts,vi editing commands	55th	
	56th	Test	56th	