

Govt. Polytechnic, Dhangar (Fatehabad)
Lesson Plan (Odd Semester)

Department : Computer Engineering

Semester : 3rd

Subject : Operating System

Lesson Plan Duration : 15 weeks

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

Week	Theory		Practical	
	Lecture day	Topic (Including assignment / test)	Practical Day	Topic
1st	1 st	Definition of Operating Systems	1st	Demonstration of all the controls provided in windows control panel
	2 nd	Types of Operating Systems: Batch Systems, Multi-		
	3 rd	Types of Operating Systems: Time Sharing Systems,		
2nd	4 th	Operating System Services, User operating system	2nd	Exercise on Basics of windows
	5 th	System Calls, Types of System Calls		
	6 th	System Programs		
3rd	7 th	Operating System Structure	3rd	Installation of Linux Operating System
	8 th	Virtual Machine, Benefits of Virtual Machine		
	9 th	Revision of the unit		
4th	10 th	Process concept, Process State, Process Control Block,	4th	Usage of directory management commands of Linux: ls, cd, pwd, mkdir, rmdir
	11 th	Scheduling Queues, Scheduler, Job Scheduler, Process		
	12 th	Context Switch, Operations on Processes		
5th	13 th	Interposes Communication	5th	Usage of File Management commands of Linux: cat, chmod, cp, mv, rm, pg, more, find
	14 th	Shared Memory Systems, Message-Passing Systems		
	15 th	CPU Scheduler, Scheduling Criteria, Process		
6th	16 th	Scheduling Algorithms, Pre-emptive and Pre-emptive	6th	Use the general purpose commands of Linux: wc, od, lp, cal, date, who, whoami
	17 th	First come first serve (FCFS), Shortest Job first		
	18 th	Revision of the Unit II		
7th	19 th	Deadlock, Conditions for Dead lock Methods for handling deadlocks	7th	Using the simple filters: pr, head, tail, cut, paste, nl, sort
	20 th	Dead Prevention, Deadlock Avoidance		
	21 st	Deadlock detection, Recovery from deadlock		
8th	22 nd	Definition – Logical and Physical address Space	8th	Communication Commands: news, write, talk, mseg, mail, wall
	23 rd	Swapping, Memory allocation partition		
	24 th	Class Test of Topics Covered		
9th	25 th	Internal and External fragmentation and Compaction	9th	Write a shell program that finds the factorial of a number
	26 th	Paging – Principle of operation, Page allocation		
	27 th	Hardware support for paging, Disadvantages of paging		
10th	28 th	Protection and sharing	10th	Write a shell program that finds whether a given number is prime or not
	29 th	Segmentation, Virtual Memory		
	30 th	Class Test of Unit III		
11th	31 st	Dedicated Devices, Shared Devices,	11th	Write a shell program to find the average of three numbers
	32 nd	I/O Devices, Storage Devices,		
	33 rd	Buffering, Spooling		

12th	34 th	Types of File System; Simple file system	12th	Write a shell program that will convert all the text of the file from lowercase to uppercase
	35 th	Basic file system, Logical file system Physical file system		
	36 th	Various Methods of Allocating Disk Space		
13th	37 th	History of Linux and Unix, Linux Overview	13th	Practice the general purpose commands of Linux
	38 th	Structure of Linux, Linux releases, Open Linux, Linux		
	39 th	Linux Commands and Filters: mkdir, cd, rmdir, pwd, ls, who, whoami,		
14th	40 th	cp, mv, rm, pg, more, pr, tail, head, cut, paste, nl	14th	Practice Shell Programming
	41 st	grep, wc, sort, kill, write, talk, mseg, wall, merge, mail, news		
	42 nd	Revision of Linux Commands		
15th	43 rd	Shell: concepts of command options input, output, redirection, pipes redirecting	15th	Practice Vi editor Programs
	44 th	and piping with standard errors Shell scripts		
	45 th	vi editing commands and Revision of Shell Script and vi editor		