Lesson Plan

Name of the Faculty : Er. Rajwinder Kaur (Theory& Practical)

Discipline : CSE

Semester : 6th

Subject : Unix & Linux Programming

Lesson Plan Duration : 15 weeks (from Feb 2021 to June 2021)

** Work Load (Lecture/Practical) per week (in hours): Lectures-03, Practicals-04

Week	Theory		Practical	
	Lecture Day	Topic	Practical Day	Topic
1st	1st	Linux Startup: User accounts, accessing Linux - starting and shutting processes, Logging in and Logging out	1st	Install LINUX on a PC having some other previously installed operating system. All operating systems should be usable.
	2nd	Unix commands like zip, unzip, pack, unpack, compress, uncompress		
	3rd	Various types of shells,Shell Programming		
2nd	4th	Unix file system: Linux/Unix files, i-nodes and structure	2nd	To Study Linux and its basic Commands.
	5th	file system related commands, Shell as command processor		
	6th	shell variables, creating command substitution		
3rd	7th	scripts, functions, conditionals, loops, customizing environment	3rd	As supervisor create and maintain user accounts.
	8th	Class Test		
	9th	Shell scripts, Regular Expressions and Filters: Introducing regular expressions patterns		
4th	10th	Regular Expressions: syntax, character classes, quantifiers	4th	To study vi editor
	11th	introduction to grep and programming		
	12th	introduction to grep, egrep and programming		
5th	13th	introduction to sed and programming	5th	Using bash shell develop simple programs
	14th	programming with awk		

6th	15th	Programming with perl		
	16th	File Compression Techniques	6th	Write a script to vheck whether a number is even or odd.
	17th	Data redundancy elimination using fingerprint generation deduplication		
	18th	Data similarities removal using delta techniques for data reduction storage		
7th	19th	Parallel compression with Xdelta utility	7th	Using bash shell develop simple shell programs.
	20th	Assignment(Data techniques) and Revision		
	21st	The C Environment: C compiler		
8th	22nd	The C Environment: C compiler	8th	Write a script to check whether a number is even or odd.
	23rd	The C Environment: C programmes		
	24th	vi editor, compiler options		
9th	23rd	sheel scripts using c	9th	Internal viva 1
	24th	managing projects, memory management		
	25th	use of makefile, cmake		
	26th	Class Test		
10th	27th	calculations, memory management	10th	Develop advanced shell Scripts using grep.
	28th	static and dynamic memory		
	29th	static and dynamic libraries, dynamic loader		
11th	30th	Debugging tools like gdb	11th	Develop advanced shell Scripts using sed.
	31st	fixed-size and variable-size blocks of data files chunks divisor chunking techniques like Frequency Based Chunking		
	32nd	fixed-size and variable-size blocks of data files chunks divisor chunking techniques like Frequency Based Chunking		
12th	33rd	Content Defined Chunking Unix based open source coding	12th	Compile and debug various C programs using different options.
	34th	Processes in Linux: Processes		
	35th	starting and stopping processes		
13th	36th	initialization processes, rc and init files	13th	Write a program to count from 1 to 10.
	37th	job control - at, batch, cron, time		
	38th	network files, security, privileges		
14th	39th	authentication,password administration	14th	To find the biggest and smallest of three numbers.
	40th	archiving, Signals and signal handlers		
	41st	Threading, Linux I/O system.		

15th	42nd	Networking tools like ping, telnet, ftp, route		
	43rd	Firewalls and security	15th	Final Internal viva
	44th	Backup and Restore tar, cpio, Case Study: PCOMPRESS open source free software		