S.NO	PRIMARY TOPICS	SUB TOPICS	POINTS TO BE COVERED
1	History of Linux	Introduction	History of Linux Advantage of Linux
		License (Freeware/Paid)	What is Open Source Software Adv & Disadv of open source sw GNU GPL
		Software Versions (Alpha , Beta Versions)	What is software? Versions of Software Explanation for Versions of software
		Linux Distributions	Linux Distribution
2	Linux subsystem	Linux subsystem	1. What is subsystem 2.What is Linux subsystem
			1. User Application 2. O/S Services 3. Linux Kernel 4. Hardware Controllers
3	Kernel	Kernel Introduction	1. What is kernel 2. What is Linux kernel
		Kernel sub systems	The Process Scheduler (SCHED)
			The Memory Manager (MM)
			The Virtual File System (VFS)
			The Network Interface (NET)
			The Inter-Process Communication (IPC) subsystem
			Communications between sub systems
4	Booting process	Pre boot sequence	BIOS,
		Boot Sequence	Loading MBR into the memory from boot sector
			Information on Boot loader LILO
			Information on Boot loader GRUB
			Initial boot loader phase(Grub)
			Initial boot loader phase(Loadlin)
			Initial boot loader phase(LILO)
			System Startup process after selecting the OS
		Kernal	Kernal boot flow
		Init	inittab file
		Runlevels	Default runlevel execution process
			Runlevels in booting
			start scripts
			kill scripts
			Runlevels
			Shutdown
		Log in process	Files executed while log on process
5	Shell	Shell	what is Shell?
			Common features of shell
			what is Bash?
		Types of Shell	Ash
			Bourne
			Bash
			Corn
			T-Shell
			C-Shell
			Z-Shell
			how Shell is differ from Ms-Dos command?
		Run Levels	What is Run levels? Functions of Run levels
		Environmental Variables	What is environmental variables?

6	File system	Unix File System	What is File?	180
			What is Directory?	
			What is Linux File system?	
			What Linux File system contains? Boot Block, Super Block, I-Node & Data Block	
			Types of Linux File System Explanation about : EXT2 EXT3 Difference between EXT2 and EXT3 EXT4 ISOFS SYSFS PROCFS	
			Disk Arrangement (Allocating)	
			Disk Arrangement (Partition)	
			Disk Management (Dynamic)	
			Disk Management (Basic)	
			How File system is Mounted	
		Journaling File System	1. What is journaling file system 2. Variations on journaling 3. Journaling levels	
		Understand file system hierarchy	1. Important directories 2. File & Directory Names 3. Absolute & Relative Pathnames 4. Changing Directories 5. Listing Directory contents 6. Copying files & Directories and The Destination 7. Moving, Renaming Files & Directories 8. Creating, Removing files & Directories 9. Using Nautilus 10. Moving & Copying in Nautilus 11. Determining file content	
		File Structure	Introduction to File Structure	
			Explanation about the directories in a file structure	
		Add new drives and partitions	1. Partitions & File systems 2. Inodes 3. Directories 4. Inodes & Directories 5. cp & inodes 6. mv & inodes 7. rm & inodes	
7	Process Management	Process Scheduling	Inter Relationship between these components for Linux Process	120
		Functions of Scheduler	1. CPU Utilization 2. Throughput 3. Turnaround 4. Wait time 5. Response time 6. Fairness	
		Types of scheduling	1. Normal 2. FIFO 3. Round Robin 4. SJF 5. Priority Based	
		Inter Process Management	Assigning Priority	
			Kill Process	
			Zombie	
			Redirection	
			Interactive & Batch Process	
8	Device Management	Device Files	Pipelines	50
			Use of Device Files	
			What is IRQ's	
		Types of Device File	Character Special Files or Character Devices	
			Block Special Files or Block Devices	
9	Memory Management	Manage virtual memory	1. What is virtual memory 2. How to manage the virtual memory	70
		Algorithm Used in MM	LRU , Buddy	
		Page Allocation	What is Page allocation & De Allocation	
		Page De Allocation		
		Swapping	How the swapping & Memory Mapping happens?	
		Memory Mapping		
10	Commands for practice	The basic commands		180