

LESSON PLAN

Subject: Linux Operating System

Subject code: PC-IT-304A

Session: 2022-23

Semester: VI

SNo	Topic	No. of Lec	CO Covered	Teaching Methodology
1	Unit-1 Introduction Introduction about linux	1	CO1	Board
2	Basic concepts of the operating system, Commands	1		PPT
3	Shells and Processes	2		Board
4	users and groups	1		Video
5	file system and directories	1		PPT
6	Kernel tasks, GRUB and LILO	2		Video
7	System configuration upgrade and network installation, disk partitioning, post-install system customization & upgrade, dpkg	2		Video
8	APT package installation, remove, upgrade & query, semiautomatic system installation	1		Board
9	Unit-2 Linux Networking Basic concepts of networking, network packets	1	CO2	PPT
10	TCP/IP protocol suit, ARP	1		Board
11	IP addresses and network mask	2		Video
12	subnets & routing	1		Video
13	Network File System (NFS) file system sharing or the network	1		PPT
14	RPC services, nfs servers & clients sides, nfs configuration, statistic & auto mount configuration	1		Flip Learning
15	Network Information Service (NIS) Centralized authentication systems; sharing user and host information or the network	2		Board
16	IS server and client sides and configuration;	1		Board
17	Compatibility mode; net group, Security issues	1		Video
18	Unit-3 Integrating Linux & Windows Samba server on Linux for centralized window logon; file sharing and printing, samba client; samba installation and configuration	2	CO3	PPT
19	Dual Boot: running windows and Linux on the same PC, Unix and windows password	1		Board
20	Elements of windows networking, GRUB and NT Boot loaders; accessing windows files systems from Linux and vice versa	1		PPT
21	Net BIOS SMB \ CIFS protocols	1		PPT
22	domain controller	1		PPT

23	Shell scripting, syntax of brash; looping; case statement; function;	1		Board
24	Command substitution, Awk, grep, sed.	1		Board
25	Startup and Run Levels. Scheduled jobs. Boot up and login process sequence; run levels; startup scripts; scheduling jobs with at and cron	1		Board
26	Unit-4 Linux Security System vulnerabilities, port scanning, encryption, encrypted services and connections	1	CO4	Flip Learning
27	PGP/GPG intrusion protection: tcp wrappers	1		Board
28	IP- firewalls	1		Board
29	NAT and DMZ	1		PPT
30	Intrusion detection systems: tripwire,	2		Video
31	Secure system management practices	1		PPT and Video
32	Email Server steps of email transaction, Email envelope and headers, SMTP servers	2		Video
33	IMAP and POP3 servers E-mail relay,	1		PPT
34	Postfix configuration	1		PPT
35	Spam and viruses	1		PPT
36	Domain Name Server Host name resolution, Domain name hierarchy; DNS zones	1		PPT