

LINUX SHELL PROGRAMMING

Semester	Subject Code	Category	Lecture Hrs		Theory Hrs		Practical		Credits
			Per week	Per Sem	Per week	Per Sem	Per week	Per Sem	
I	21CPCS1B	CORE - II	6	90	6	90	0	0	4

COURSE OBJECTIVE

- This paper help us to understand and make effective use of Linux utilities and Shell scripting language (bash) to solve real time applications.

COURSE OUTCOME

successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level (K1-K4)
CO1	Understand about Linux history, Linux architecture, GNU, Free software foundation.	K2
CO2	Writing simple Shell scripts, Work with files using shell Understand/Apply scripts.	K3
CO3	Design and develop shell programming, communication, System calls and terminology.	K2
CO4	Understand about processes, process structure using shell Understand/Apply Scripts	K3
CO5	Understand sockets and Create network based Understand/Apply applications using TCP and UDP sockets.	K4

Knowledge Level – K1-Remember, K2- Understand, K3-Apply, K4-Analyze

MAPPING WITH PROGRAMME OUTCOME

COS	PO1	PO2	PO3	PO4	PO5	PO6
CO1	S	S	S	M	S	M
CO2	S	M	S	M	M	M
CO3	S	M	S	S	S	S
CO4	S	S	M	M	S	S
CO5	S	S	M	S	S	S

S-Strong , M-Medium L-Low

UNIT I – BASICS OF LINUX OPERATING SYSTEM

19Hours

Introduction to Linux System - History of Emergency – Features of Linux System – Hardware Requirements for the Different Version of Linux - Architecture of Linux – Features of Kernal and Kernal Shell Relationship – Linux File System – Features of Linux File System – File Types and Permissions – Getting Started – Logging In/Out with the Concept of Home Directory – File Operation and Links – Commonly Used Commands like grep, find, who, ls, pwd, mv, cd, df, cat, head, tail, sort, grip, chmode and date.

UNIT II – LINUX COMMANDS

18 Hours

Text Processing – Vi Editor – Vi Features – Vi Commands – Yanking, Running Shell Commands from within Vi – Set Show Mode - Set Auto Indent – Set Number – Emacs Editor – Emacs Features – Emacs Commands Using Cut, Paste And Copy In Emacs – Saving Buffer In Emacs.

UNIT III – SHELL PROGRAMMING

18 Hours

Shell Programming – Features of Shell – Different Types of Shell – Shell Treatment to the Command Line – The Environment – Set Setenv, Path, Home, Ifs, Mail, Ps1, Ps2, Term, Log Name, Profile File, Login And Logout File – Setting Environment – Simple Shell Programs for, do, do while, case, construct.

UNIT IV – WINDOWS OPERATING SYSTEM

17 Hours

X-Windows – Microsoft Windows Versus X-Windows, Windows Manager – FVWM and FVWM 95 – Twn, The Client Server Model Of X-Windows – Starting and Stopping X- Windows Sessions.

UNIT V – GNOME AND KDE

18 Hours

Gnome And KDE Desktop Environment – Starting the Gnome Desktop Environment – Gnome Panel Using the Main System Menu – File Manager – Getting Help In Gnome Using the Gnome Control – History of KDE Project – Starting the KDE Desktop Environment – Exploring the KDE Desktop – KDE Main System Menu Using File Manager Window – Setting Wallpaper, Screensaver in KDE – System Administration Of Linux – Red Hat Linux Installation.

Distribution of Marks: Theory 80% and Applications: 20%

TEXTBOOKS

S.NO	AUTHORS	TITLE	PUBLISHERS	YEAR OF PUBLICATION
1	Wale Soyinka.	Linux Administration A Beginners Guide	Tata McGraw-Hill	2009
2	N.Matthew, R.Stones, Wrox, Willey India Edition.	Beginning Linux Programming	Willey India	2009
3	<u>Richard</u> <u>Petersen</u>	The Complete Reference	MC Graw Hill	2008

REFERENCEBOOK

S.NO	AUTHORS	TITLE	PUBLISHERS	YEAR OF PUBLICATION
1	Mark G. Sobell	Practical Guide to Fedora and Red HatEnterpriseLinux	Prentice Hall	2011

WEB RESOURCES

- 1) www.linuxhomenetworking.com
- 2) www.linux.com

TEACHING METHODOLOGY

- Class room teaching & Group discussions
- Seminars & Smart Class room
- Chart/Assignment & Simulation Model

SYLLABUS DESIGNERS

- Mrs.G.SANGEETHA LAKSHMI, Assistant professor & HOD, Dept of Computer Science & Applications
- Mrs. R BHUVANESHWARI, Assistant Professor , Dept of Computer Science & Applications