RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY, NAGPUR

FOUR YEAR BACHELOR OF TECHNOLOGY (B. Tech..) DEGREE COURSE

SEMESTER: VI (C.B.C.S.)

BRANCH: COMPUTER SCIENCE AND ENGINEERING

Examination Scheme and Syllabus

Sixth Semester:-

S. N.	Subject	Teaching Scheme			Evaluation Scheme			Credits	Category
		L	T	P	CA	UE	Total		
1	Compiler Design	4	-	-	30	70	100	4	PCC-CS
2	Compiler Design -Lab	-	-	2	25	25	50	1	PCC-CS
3	Elective-II	3	-	-	30	70	100	3	PEC-CS
4	Elective-III	3	-	-	30	70	100	3	PEC-CS
5	Open Elective-I	3	-	-	30	70	100	3	OEC
6	Professional Skills Lab II	-	-	2	25	25	50	1	PCC-CS
7	Hardware Lab	-	-	2	25	25	50	1	ESC
8	Mini Project	-	-	6	50	50	100	3	PROJ-CS
9	Economics of IT Industry	2	-	-	15	35	50	2	HSMC
10	Intellectual Property Rights (AuditCourse)	2	-	-	50	-	-	Audit	PCC
	Total	**17**	**-**	**12**			**700**	**21**	

Elective-II: - 1. Machine Learning 2. Internet of Things 3. Cluster and Cloud Computing

Elective-III: - 1. Data Science 2. Distributed Operating Systems 3. Human Computer Interaction

Open Elective 1:- 1. Linux Fundamentals 2. Android Application Development 3. Blockchain Technologies

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY, NAGPUR
FOUR YEAR BACHELOR OF TECHNOLOGY (B. Tech..) DEGREE COURSE
SEMESTER: VI (C.B.C.S.)
BRANCH: COMPUTER SCIENCE AND ENGINEERING

Subject: **Open Elective 1: Linux Fundamentals** Subject Code: **BTECH-CSE-604.1T**

Load	Credits	College Assessment Marks	University Evaluation	Total Marks
36 Hrs.	**3**	**30**	**70**	**100**

Aim: To provide knowledge of Linux including the directory structure, basic commands, the shell, and using the command line.

Prerequisites: Basic knowledge of networks, and computer skills.

Course Objectives:

Students should be able to:

1	Understand basic terminology of Linux.
2	Conduct basic activities such as installation, troubleshooting, and navigation.
3	Understand and write shell scripta and management of Failure recovery.

Course Outcomes
Students would be able to:

1	Understand Linux Architecture, different Linux installation and Linux commands.
2	Effectively use Linux Environment using shell, file system, scripts, filters and program development tools
3	Perform user, group management , package management through commands
4	Perform storage management and faiIure recovery through commands.
5	Automate tasks and write simple programs using shell scripts.

SYLLABUS:

UNIT-I

History of Linux OS, Architecture of Linux OS, Linux Dist ribution s, Installation of Linux OS

UNIT- II

Introduction to terminal, Basic commands, File system, File handling commands, process and process management commands, VI editor.

UNIT- Ill

Users and Group management- Creation, Updating, Deletion of user and group, Commands - password, Shadow, user add, user mod , user deI, group add, group mod, group del.

UNIT-IV

Package Management - Introduction to package manager, function of package manager, Package management commands - rpm, yum. Storage management- Types of storages, creating partitions using f disk command.

UNIT-V

Logical volume management (LVM), Creating file system, mounting file system. Shell and Shell script.

Text Book

1. Unix and Shell Programming-B. M. Harwani, OXFORD University Press.

Reference Books

1. Linux Administration: A Beginner's Guide-Wale Soyinka, McGraw **Hill** Publication

2. Unix Concepts and Applications-Sumitabha Das, McGraw Hill Publication