10B17CI307: UNIX Programming Lab

Course Credit: 1

Semester: III

Objective:

This course introduces basic understanding of UNIX OS, UNIX commands and File system and to familiarize students with the Linux environment.To make student learn fundamentals of shell scripting and shell programming. Emphases are on making student familiar with UNIX environment and issues related to it.

Learning Outcomes:

Upon completion of this course, the student will be able to:

1. You will be able to run various UNIX commands on a standard UNIX/LINUX Operating system (We will be using Ubuntu flavor of the Linux operating system).
2. You will be able to run C / C++ programs on UNIX.
3. You will be able to do shell programming on UNIX OS.
4. You will be able to understand and handle UNIX system calls.

List of Experiments

S NO	Topics
1	Introduction to Unix Operating System and comparing it with Windows OS. Overview to Open Source Software. Writing and studying about how to execute C program in Unix environment using GCC compiler along with phases of compilation. Executing simple Hello World C program in UNIX environment using ed / nano / pico editor.
2	Working with the vi editor: Creating and editing a text file with the vi text editor using the standard vi editor commands
3	UNIX for Beginners: Getting hands-on on basic UNIX commands
4	Some more UNIX commands: Working with directories, input-output redirection, Pipes, Processes
5	The UNIX file system
6	Using the Shell
7	Working with filters: grep, sed and awk
8	UNIX Shell Programming
9	Programming with standard I/O
10	UNIX System Calls

References

1. Brian W. Kernighan and Rob Pike, “The UNIX Programming Environment” Prentice Hall India (Edition available in LRC and in the form of E Book on student resource)
2. Sumitabha Das, “UNIX: Concepts and Applications” Tata McGraw Hill (Latest Edition)

3. Yashwant Kanetkar, “UNIX Shell Programming” BPB Publications (First Edition)
4. Jerry Peek and others, “Unix Power Tools” O’Reilly Publishers

Evaluation Scheme:

1.	Mid Term Exam (Viva and Written Exam)	20
2.	End term Exam (Viva and Written Exam)	30
3.	Lab Records	5
4.	Regular Assessment (Quality and quantity of experiment performed, Learning laboratory skills, Attendance etc.)	30
5.	Project	15
	Total	**100**