

**M.Sc. (Computer Science)**  
**Semester-2**  
**MSCS-2-01P: Operating Systems Lab**

**Total Marks: 50**  
**External Marks: 15**  
**Internal Marks: 35**  
**Credits: 2**  
**Pass Percentage: 40%**

<b>Course: Operating Systems Lab</b>	
<b>Course Code: MSCS-2-01P</b>	
<b>Course Outcomes (COs)</b>	
After the completion of this course, the students will be able to:	
CO1	Demonstrate the installation process of various operating systems.
CO2	Implement virtualization by installing Virtual Machine software.
CO3	Apply UNIX/LINUX operating system commands.
CO4	Understand different UNIX/LINUX shell scripts
CO5	Implement and execute various shell programs.

**Detailed List of Programs:**

<b>Programme No.</b>	<b>Name of Program</b>
P1	Install UNIX/LINUX – Complete Step by Step
P2	Study of Basic UNIX Commands and various UNIX editors such as vi, ed, ex and EMACS
P3	Write a shell script that deletes all lines containing the specified word in one or more files Supplied as arguments to it.
P4	Write a shell script that displays a list of all files in the current directory to which the user has read, write and execute permissions
P5	Write a shell script that receives any number of file names as arguments checks if every argument supplied is a file or directory and reports accordingly. Whenever the argument is a file it reports no of lines present in it
P6	Write a shell script that accepts a list of file names as its arguments, counts and reports the occurrence of each word that is present in the first

*Monika*  
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	argument file on other argument files.
P7	Write a shell script to list all of the directory files in a directory
P8	Write a shell script to find factorial of a given number
P9	Write an awk script to count number of lines in a file that does not contain vowels
P10	Write an awk script to find the no of characters ,words and lines in a file
P11	Implement in C language, the following Unix commands using system calls a) cat b) ls c) mv
P12	Write a C program that takes one or more file/directory names as command line input and reports following information
P13	Write a C program to list every file in directory, its inode number and file name
P14	Write a C program to create zombie process
P15	Write a C program to illustrate how an orphan process is created
P16	Write client server programs using c for interaction between server and client process using Unix Domain sockets

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