

Lab No	Practical
1	<b>Unix/Linux Introduction.</b>  Development of Unix/Linux, Role & Function of Kernel, System Calls, Elementary Linux command & Shell Programming.
2	<b>Linux/UNIX Commands.</b>  Explain the following Unix Commands: cd, ls, man, echo, cal, date, clear, cat
2	<b>Shell Scripts (Using if statement)</b>  Write a Shell Script: <ol style="list-style-type: none"> <li>Which works like a calculator and performs below operations Addition, Subtract, Division and Multiplication?</li> <li>To find a greater number out of 2 numbers.</li> </ol>
3	<b>Linux/UNIX Commands</b>  Explain the following Unix Commands: who, whoami, uname, passwd, mkdir, rmdir, cp, mv, rm, cut, paste, more
3	<b>Shell Scripts (Using if...else and nested if statement)</b>  Write a Shell Script: <ol style="list-style-type: none"> <li>To check given number is ODD or EVEN.</li> <li>To find the largest among the 3 given numbers.</li> </ol>
4	<b>Linux/UNIX Commands</b>  Explain the following Unix Commands: cmp, comm, diff, chmod, chown, chgrp, file, finger, sleep, kill, ps, wc
4	<b>Shell Scripts (Using if...else and if-else-if ladder)</b>  Write a Shell Script: <ol style="list-style-type: none"> <li>To check given year is Leap year or not.</li> <li>Write a shell script to generate mark sheet of a student. Take 3 subjects, calculate and display total marks, percentage and Class obtained by the student.</li> </ol>
5	<b>Linux/UNIX Commands</b>  Explain the following Unix Commands: ln, nl, head, tail, sort, find, uniq, tr, history, pipe, write, wall

**Subject:** 3140702 - Operating System

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5	<b>Shell Scripts (Using while loop)</b>  Write a Shell Script: <ol style="list-style-type: none"> <li>To print 1 to 'n' numbers.</li> <li>To find Sum &amp; Average of 'n' numbers.</li> <li>To display the multiplication table of the given number.</li> </ol>
6	<b>Shell Scripts (Using while loop)</b>  Write a Shell Script: <ol style="list-style-type: none"> <li>To find factorial of given number n.</li> <li>To check whether a given number is palindrome or not.</li> </ol>
7	<b>Shell Scripts (Using while loop)</b>  Write a Shell Script: <ol style="list-style-type: none"> <li>To find the value of one number raised to the power of another.</li> <li>To check whether a given number is prime or not.</li> <li>Which will accept a number n and display first n prime numbers as output?</li> </ol>
8	<b>Shell Scripts (Using for loop)</b>  Write a Shell Script: <ol style="list-style-type: none"> <li>To print the pyramid structure for the given number.</li> <li>To check whether the given string is palindrome or not.</li> </ol>
9	<b>Shell Scripts (Using while loop and cal command)</b>  Write a Shell Script: <ol style="list-style-type: none"> <li>To find first n Fibonacci numbers like: 0 1, 1, 2, 3, 5, 13, ...</li> <li>To scans the name of the command and executes it.</li> <li>To display current month calendar.</li> </ol>
10	<b>Shell Scripts (Using while loop, date and tty command)</b>  Write a Shell Script: <ol style="list-style-type: none"> <li>Which will print the following menu and execute the given task?               <ol style="list-style-type: none"> <li>Display calendar of current month</li> <li>Display today's date and time</li> <li>Display usernames that are currently logged in the system</li> <li>Display your name at given x, y position</li> <li>Display your terminal number</li> <li>Exit</li> </ol> </li> </ol>

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11	<b>Shell Scripts (Using array, ls and date command)</b>  Write a Shell Script: <ol style="list-style-type: none"> <li>To read n numbers as command arguments and sort them in descending order.</li> <li>To display all executable files, directories and zero sized files from current directory.</li> <li>To display the date, time and a welcome message (like Good Morning etc.). The time should be displayed with "a.m." or "p.m." and not in 24 hours notation.</li> <li>Write a shell script to check entered string is palindrome or not.</li> </ol>
12	<b>Shell Scripts (Using date, passwd and who command)</b>  Write a Shell Script: <ol style="list-style-type: none"> <li>To validate the entered date. (E.g. Date format is: dd-mm-yyyy).</li> <li>Which checks whether a given user is valid or not.</li> <li>That finds total no. of users and finds out how many of them are currently logged in.</li> <li>Write an awk program using function, which convert each word in a given text into capital.</li> <li>Write a program for process creation using C. (Use of gcc compiler).</li> </ol>