



<b>NAME OF THE PROGRAM: CSE</b>	<b>DEGREE: B.Tech</b>
<b>COURSE NAME: Operating System</b>	<b>SEMESTER: 5<sup>th</sup></b>
<b>COURSE CODE: PCC-CS592</b>	<b>COURSE CREDIT: 2</b>
<b>COURSE TYPE: LAB</b>	<b>CONTACT HOURS: 4P</b>

Exp. No.	List of Experiments	Date
1	a) Write Shell script to find out Factorial of a given number. b) Write Shell script to determine a given year is leap year or not. c) Write Shell script to find out sum of digits of a given number. d) Write Shell script to generate Fibonacci series up to nth term	Week 1
2	a) Write a shell script for Summation of n natural numbers where the value of n is given in command line b) Write a shell script that sorts an array of integer using any well-known sorting algorithm c) Write a shell script to check an input string is a valid user or not	Week 2
3	Write a shell script to find out the name, grade, maximum marks holder & total marks from a file. Write a menu driven script to do the following: a) Check permissions of a file b) Check no of files and directories c) Check no of users connected	Week 3
	a) Write a shell script that sorts an array of integer using any well-known sorting algorithm b) Write a shell script to check an input string is a valid user or not. c) Write a shell script to find out last modification time of a file in current directors	Week 4
5	a) Write a C program to know the PID & PPID of child & parent. b) Create an Orphan process & zombie process.	Week 5
6	a) Implement IPC between parent and child process where parent will print a message received from the child, who will take the message as user input. Use unnamed pipe for IPC. b) Implement IPC between two processes where process-1 will take two strings as user input and send them to process-2. Process-2 will compare them and print the result (SAME OR NOT SAME). Use FIFO for IPC.	Week 6

7	a) Write a Program to demonstrate the use of signal. The process will print a message infinitely until an interrupt signal occurs. It will handle the signal and will print a message along with the signal number that it has got b) Write a program to demonstrate the use of signal. Parent process will stop until an alarm received from child process c) Write a Program to create a child process. The parent will send a signal to the child every 5 seconds and the child will handle the signal and check if an input number is a leap year or not	<b>Week 7</b>
8	Write a 'C' program in LINUX to create a thread that determines the summation of N natural numbers using POSIX thread	<b>Week 8</b>
9	a) WAP using semaphore which two process will synchronize each other to print baabbaabbaab pattern. b) WAP where a newly created thread will check and number is prime or not, which number is entered in main thread.	<b>Week 9</b>
10	Simulate Producer-Consumer Problem using multi-threading and Semaphore	Week 10
11	Simulate Reader-Writer Problem using multi-threading and Semaphore	<b>Week 11</b>
12	Simulate Dining Philosopher Problem using multi-threading and Semaphore	Week 12