



GOVT. MODEL ENGINEERING COLLEGE, THRIKKAKARA
“*Evolve into an academy of excellence to serve the knowledge society*”
(Managed by IHRD, A Govt. of Kerala Undertaking)
DEPARTMENT OF COMPUTER ENGINEERING

B.TECH. DEGREE FOURTH SEMESTER
COMPUTER SCIENCE AND ENGINEERING

Academic Year:
2023-24

Course Code: CSL
204

Course Title: Operating Systems Lab

Faculty Handling the Course: Divya Prakash, Anisha K Jose, Maria Vjoy, Ashok V, Arya Mary K J, Sinu T S

Day	
1.	Familiarize with basic Linux commands for directory and file operations-[pwd, ls, cd, mkdir, rmdir, man, rm, touch, man, cp, mv, cat, echo, grep, find, sort, wc]
2.	Write shell script to implement the following (i) Print numbers from 1 to 100 (ii) Finding factorial of a number (iii) Sum of digits of a number
3.	Implement fork, exec, getpid, exit, wait, close, stat, opendir and readdir system calls.
4	Implement Memory Allocation Methods for fixed partition using linked list (a) First-fit (b) Worst Fit (c) Best Fit
5	Simulate the following CPU scheduling algorithms to find turnaround time and waiting time. a. FCFS b. SJF (non pre-emptive) c. Round Robin d. Priority (Non-preemptive)
6	Implement interprocess communication (IPC) using Shared Memory
7	Implement the Producer-Consumer problem using semaphores.
8	Implement Bankers algorithm for deadlock avoidance.

9	Simulate the following page replacement algorithms: a. FIFO b. LRU c. LFU
10	Simulate the following Disk Scheduling algorithms: a. FCFS b. SCAN c. C-SCAN