**LIST OF PROGRAMS**

1. Create a new process by invoking the appropriate system call. Get the process identifier of the currently running process and its respective parent using system calls and display the same using a C program.

2. Identify the system calls to copy the content of one file to another and illustrate the same using a C program.

3. Design a CPU scheduling program with C using First Come First Served technique with the following considerations.

a. All processes are activated at time 0.

b. Assume that no process waits on I/O devices.

4. Construct a scheduling program with C that selects the waiting process with the smallest execution time to execute next.

5. Construct a scheduling program with C that selects the waiting process with the highest priority to execute next.

6. Construct a C program to simulate Round Robin scheduling algorithm with C.

7. Illustrate the concept of inter-process communication using shared memory with a C program.

8. Illustrate the concept of multithreading using a C program.

9. Design a C program to simulate the concept of Dining-Philosophers problem

10. Construct a C program for implementation of memory allocation using first fit strategy.

11. Construct a C program to organize the file using single level directory.

12. Design a C program to organize the file using two level directory structure.

13. Develop a C program for implementing random access file for processing the employee details.

14. Illustrate the deadlock avoidance concept by simulating Banker’s algorithm with C.

15 Construct a C program to simulate producer-consumer problem using semaphores.

16. Construct a C program to simulate the First in First Out paging technique of memory management.

17. Construct a C program to simulate the Least Recently Used paging technique of memory management.

18. Construct a C program to simulate the optimal paging technique of memory management

19. Consider a file system where the records of the file are stored one after another both physically and logically. A record of the file can only be accessed by reading all the previous records.  Design a C program to simulate the file allocation strategy.

20. Consider a file system that brings all the file pointers together into an index block. The ith entry in the index block points to the ith block of the file. Design a C program to simulate the file allocation strategy.

21. With linked allocation, each file is a linked list of disk blocks; the disk blocks may be scattered anywhere on the disk. The directory contains a pointer to the first and last blocks of the file.  Each block contains a pointer to the next block. Design a C program to simulate the file allocation strategy.

22. Construct a C program to simulate the First Come First Served disk scheduling algorithm.

23. Design a C program to simulate SCAN disk scheduling algorithm.

24.. Develop a C program to simulate C-SCAN disk scheduling algorithm.

25. Illustrate the various File Access Permission and different types users in Linux.