

# **Experiment No: 01**

## **Experiment Name:**

- (i) Simulate the following CPU scheduling algorithms : a) FCFS b) Priority.
- (ii) How do you display the system information in Linux?
- (iii) How do you update the system packages in Linux?
- (iv) How do you install a new package in Linux?
- (v) How do you remove a package in Linux?
- (vi) How do you display the system log messages in Linux?
- (vii) How do you display the manual page for a command in Linux?
- (viii) How do you change the network configuration in Linux?
- (ix) How do you display the list of installed packages in Linux?
- (x) How do you install a package in Linux?

# **Experiment No: 02**

## **Experiment Name:**

(i) Simulate the following CPU scheduling algorithms. a) SJF b) Round Robin

(i) How do you view the routing table in Linux?

(ii) How do you add a route to the routing table in Linux?

(iii) How do you delete a route from the routing table in Linux?

(iv) How do you ping a remote host in Linux?

(v) How do you display the DNS configuration in Linux?

(vi) How do you edit the DNS configuration in Linux?

(vii) How do you display the system information in Linux?

(viii) How do you shutdown the system in Linux?

(ix) How do you restart the system in Linux?

(x) How do you display the current network configuration in Linux?

# **Experiment No: 03**

## **Experiment Name:**

- (i) Write a C program to simulate producer-consumer problem using Semaphores.
- (ii) How do you create a zip archive in Linux?
- (iii) How do you extract a zip archive in Linux?
- (iv) How do you compress a zip archive in Linux?
- (v) How do you display the network interfaces in Linux?
- (vi) How do you configure a network interface in Linux?
- (vii) How do you view the IP address of a network interface in Linux?
- (viii) How do you create a new user in Linux?
- (ix) How do you delete a user in Linux?
- (x) How do you change the password of a user in Linux?
- (xi) How do you add a user to a group in Linux?
- (xii) How do you remove a user from a group in Linux?
- (xiii) How do you display the members of a group in Linux?

# **EXPERIMENT No: 04**

## **Experiment Name:**

- (i) Write a C program to simulate the concept of Dining-philosophers problem.
- (ii) How do you extract a tar archive in Linux?
- (iii) How do you compress a tar archive in Linux?
- (iv) How do you give read, write, and execute permissions to a file or directory in Linux?
- (v) How do you remove read, write, and execute permissions from a file or directory in Linux?
- (vi) How do you delete a file using the rm command in Linux?
- (vii) How do you search for a specific pattern in a file using the grep command in Linux?
- (viii) How do you create a symbolic link in Linux? (
- ix) How do you create a hard link in Linux?
- (x) How do you change the permissions of a file or a directory in Linux?
- (xi) How do you display the permissions of a file or a directory in Linux?

# **Experiment No: 05**

## **Experiment Name:**

- (i) Simulate the bankers' algorithm for deadlock avoidance.
- (ii) How do you mount a file system in Linux?
- (iii) How do you unmount a file system in Linux?
- (iv) How do you view the contents of a compressed file in Linux?
- (v) How do you extract the contents of a compressed file in Linux?
- (vi) How do you create a compressed file in Linux?
- (vii) How do you create a tar archive in Linux?
- (viii) How do you display the contents of a file in reverse order in Linux?
- (ix) How do you display the contents of a file one page at a time in Linux?
- (x) How do you compress a file or a directory in Linux?
- (xi) How do you decompress a compressed file or a directory in Linux?



## **Experiment No: 06**

### **Experiment name:**

- (i) Simulate Bankers Algorithm for Dead Lock Prevention.
- (ii) How do you change the owner of a file or directory in Linux?
- (iii) How do you change the group of a file or directory in Linux?
- (iv) How do you view the running processes in Linux?
- (v) How do you terminate a running process in Linux?
- (vi) How do you check the disk usage of a file system in Linux?
- (vii) How do you check the available disk space in Linux?
- (viii) How do you display the total amount of RAM on the machine in Linux?
- (ix) How do you display the list of running processes in Linux?
- (x) How do you terminate a running process in Linux?
- (xi) How do you search for a specific text within a file in Linux?
- (xii) How do you search for a file with a specific name in Linux?

## **Experiment No: 07**

### **Experiment Name:**

- (i) Simulate Resource Allocation Graph for Dead Lock Avoidance.
- (ii) How do you search for a specific string in a file in Linux?
- (iii) How do you create a symbolic link to a file in Linux?
- (iv) How do you display the current date and time in Linux?
- (v) How do you display the current working directory in Linux?
- (vi) How do you create a new user account in Linux?
- (vii) How do you change the password for a user account in Linux?
- (viii) How do you display the current date and time in Linux?
- (ix) How do you display the current user name in Linux?
- (x) How do you display the current working directory in Linux?

## **Experiment No: 08**

### **Experiment Name:**

- (i) Simulate Wait for Graph for Dead Lock Detection.
- (ii) How do you move a file to a different directory in Linux?
- (iii) How do you copy a file to a different directory in Linux?
- (iv) How do you delete a file in Linux?
- (v) How do you delete a directory in Linux?
- (vi) How do you rename a file in Linux?
- (vii) How do you create a new file in Linux?
- (viii) How do you display the contents of a file on the screen in Linux?
- (ix) How do you display the IP address of the machine in Linux?
- (x) How do you display the available disk space in Linux?



## **Experiment No: 09**

### **Experiment Name:**

- (i) Create processes using fork() system call program.
- (ii) Replace processes using exec() system call program.
- (iii) How do you create a new directory in Linux using the mkdir command in Linux?
- (iv) How do you navigate to the parent directory using the cd command in Linux?
- (v) How do you change the permissions of a file or directory using the chmod command in Linux?
- (vi) How do you display the contents of a file using the cat command in Linux?
- (vii) How do you copy a file from one location to another using the cp command in Linux?
- (viii) How do you list all the files in the current directory in Linux?
- (ix) How do you create a new directory in Linux?
- (x) How do you change file permissions in Linux?

## **Experiment No: 10**

### **Experiment Name:**

i) Simulate the following CPU scheduling algorithms. a) Round Robin d) Priority.

(ii) How do you remove a package in Linux?

(iii) How do you update the system in Linux?

(iv) How do you upgrade the system in Linux?

(v) How do you create an archive of a directory in Linux?

(vi) How do you extract the contents of an archive in Linux?

(vii) How do you display the list of active network connections in Linux?

(viii) How do you display the routing table in Linux?

(ix) How do you display the system logs in Linux?

(x) How do you navigate to the home directory in Linux?

(xi) How do you create a new file in Linux?

(xii) How do you remove a file in Linux?

(xiii) How do you remove a directory in Linux?

(xiv) How do you rename a file in Linux?

(xv) How do you move a file to a different directory in Linux?

(xvi) How do you copy a file to a different directory in Linux?