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|----------|-----------|------------|
| 1. ls    | 12. w     | 23. grep   |
| 2. chmod | 13. sort  | 24. wc     |
| 3. cat   | 14. kill  | 25. uniq   |
| 4. du    | 15. cut   | 26. rm     |
| 5. ftp   | 16. fg    | 27. telnet |
| 6. ps    | 17. paste | 28. rmdir  |
| 7. head  | 18. arp   | 29. egrep  |
| 8. df    | 19. diff  | 30. chgrp  |
| 9. tail  | 20. nl    | 31. fgrep  |
| 10. who  | 21. comm. | 32. chown  |
| 11. tr   | 22. bg    |            |

- 1) Write a shell script that accepts a file name, starting and ending line numbers as arguments and displays all the lines between the given line numbers.
- 2) Write a shell script that deletes all lines containing a specified word in one or more files supplied as an argument.
- 3) Write a shell script that displays a list of files in the current directory to which the user has read, write and execute permissions.
- 4) Write a C program to list for every file in a directory, its inode number and file name.
- 5) Write an awk script to find the number of characters, words and lines in a file.
- 6) Write an awk script to count the number of lines in a file that do not contain vowels.
- 7) Write a shell script to find factorial of a given integer. And to list all the directory files in the given directory.
- 8) Write a C program that makes a copy of a file using standard I/O and system calls.
- 9) Write a shell script that receives a list of file names as its arguments, counts and reports the occurrence of each word that is present in the first argument file on other argument files.
- 10) Write a C Program to implement cat command using system calls.
- 11) Write a C Program to implement mv command using system calls.
- 12) Write a C Program to implement ls command using system calls.
- 13) Write a shell script that receives any number of file names as arguments checks if every argument supplied is a file or a directory and reports accordingly. Whenever the argument is a file, the number of lines in it is also reported.
- 14) Write a C program that illustrates communication between two unrelated processes using named pipe.
- 15) Write a C program (sender.c) to create a message queue with read and write permissions to write 3 messages to it with different priority numbers.
- 16) Write a C program (receiver.c) that receives the messages (from the above message queue as specified in (21)) and displays them.
- 17) Write a C Program to create a zombie process.