1. Write a linux command to list all the symbolic links in the current working directory

Answer: ls –la | grep “\->”

2. Write a linux command to create an empty file fileop.c in your directory (without using any editor)

Answer: cat > fileop.c

3. Give a linux command to make the file fileop.c only readable for the user and no access rights for group and owner

Answer: chmod 400 fileop.c (4 is 100 or r--, 0 is 000 or ---)

4. How will you find which operating system your system is running on in linux?

Answer: To check OS version, you may type command cat /etc/os-release at terminal or just go to System settings -> Details -> Overview

5. How will you run a process in background? How will you bring that into foreground and how will you kill that process?

Answer: pause process then enter bg [job\_id] to put it in background, fg [job\_id] foreground, kill to terminate process

6. How do you know if a remote host is alive or not?

Answer: We can check these by using “ping <host\_IP>” command at terminal

7. Give a linux command to know all the earlier commands entered by you at the terminal.

Answer: Typing “history” displays all recent used commands on the terminal.

8. How do you find which process is taking how much CPU?

Answer: With “top” command

9. How do you check how much space left on current drive?

Answer: With “df” command

10. What is the difference between ps -ef and ps –a?

Answer: “ps –ef” displays detailed information about all processes, “ps –a” displays information about processes related to specific terminal

11. How do you find how many cpu are there in your system and their details?

Answer: Open file cpuinfo from directory proc “cat /proc/cpuinfo” and “lscpu” command for details

12. How do you find zombie process in linux?

Answer: With “ps aux | grep Z “command

13. There is a file somewhere in your system which has the name part2q. Give a linux command to find that file.

Answer: “find /home/username/ -name "part2q"

14. How do you find whether your system is 32 bit or 64 bit?

Answer: “lscpu” command or from System settings -> Details -> Overview

15. How do you find which processes are using a particular file?

Answer: “fuser file\_name”

16. There is a file part2q which contains words the, give a linux command to replace all the occurrences of the in the file with THE?

Answer: “sed -i 's/the/THE/g' part2q”

17. You have listdir file created in your directory using question(B). Give a linux command to display second column values from the file.

Answer: “awk '{print $2}' listdir”

18. Your application home directory is full? How will you find which directory is taking how much space?

Answer: “du” command

19. How do you find for how long your System is up?

Answer: “uptime"

20. Give a linux command to reverse all lines in your file listdir

Answer: “tail –r listdir”

21. Give a linux command to display processes sorted on CPU usage.

Answer: “ps -aux --sort -pcpu | head”

22. How do you get (display) only first 10 lines from file gptable.txt

Answer: “head –n 10 gptable.txt”

23. How do you get (display) last 8 lines from file gptable.txt

Answer: “tail –n 8 gptable.txt”

24. Give atleast two linux commands to compress and atleast two linux commands to decompress files in your directory. Give examples in each case taking 6 large files to compress & then decompress and compare the sizes of the original and compressed files. State which compression command or algorithm more efficient in reducing the file size.

Answer: “gzip”, “bzip2”- commands to compress, “gunzip”, “bunzip2” – command to decompress; gzip achieves better compression

25. Give a linux command to display line numbers along with each line of text in a file

Answer: “nl file.txt”

26. Give a linux command to assign execute rights to all for the file gptable.txt

Answer: “chmod a ~/gptable.txt”

27. What does rm –r \* do?

Answer: Recursively removes all files from folder

28. What is the behavioral difference between cmp and diff commands. Take an example and illustrate.

Answer: “cmp” compares 2 files byte by byte, “diff” compares 2 files line by line

29. Give two commands in linux to display first line of a file.

Answer: “head -1 file.txt” “sed -n 1p file.txt”

30. Give two commands in linux to display last line of a file.

Answer: “tail -n1 file.txt” “sed -n '$p' file.txt”

31. What is the command to find maximum memory taking process on your system?

Answer: “ps aux | awk '{print $2, $4, $11}' | sort -k2rn | head -n 20”

32. What is the command to find hidden files in your current directory?

Answer: “ls -ld .?\*”

33. What is the command to find currently running process in your system?

Answer: ps -r

34. What is the command to find remaining disk space on your system?

Answer: “df –a”

35. What is the command to count only the number of lines in the file listdir

Answer: “wc -l file.txt”

36. What is the command to count only the number of words in the file listdir

Answer: “wc –w file.txt”

37. What is the command to count only the number of characters in the file listdir

Answer: “wc –m file.txt”

38. Is there a way to erase all files in the current directory, including all its sub- directories, using only one command?

Answer: “rm -r \*”

39. What is the use of the tee command? Explain with an example

Answer: “tee” command copies data from input to output and also to files, for example “cat newfile.txt | tee -a file.txt” – “cat” command outputs content of file newfile.txt, output of this command pipes to “tee” which copies to terminal and appends to file.txt because of “-a”

40. What Linux operating system command would you use to display the shell's environment variables?

Answer: “printenv”

41. What is the difference between the commands ls –la > file1 and ls –la > file1 2>&1

Answer: File descriptor 1 is the standard output (stdout). File descriptor 2 is the standard error (stderr). Here is one way to remember this construct (although it is not entirely accurate): at first, 2>1 may look like a good way to redirect stderr to stdout. However, it will actually be interpreted as "redirect stderr to a file named 1". & indicates that what follows is a file descriptor and not a filename. So, the construct becomes: 2>&1.

42. How do you find the length of 9th line in your file listdir

Answer: awk ‘NR==9’ listdir | wc –m (shows the length with \n new line character) awk ‘NR==9’ listdir | awk ‘{print length}’ (ignores the new line character)

43. Give a command to delete first line from your file listdir

Answer: “sed '1d' listdir”

44. Give a command to delete last line from your file listdir

Answer: “sed -i '$ d' listdir”

45. Give a command to get 4th word in a line in file part2q

Answer: “awk '{print $4,$0}' part2q”

46. Give a command to get first word in a line in file part2q

Answer: “awk '{print $1}’ part2q'”

47. Give a command to get last word from a line in file part2q

Answer: “awk '{print $NF}’ part2q'”

48. Give a command in linux to reverse a string “WINE Is Not windows Emulator”

Answer: “echo "WINE Is Not windows Emulator" | rev”

49. Give a command to delete lines from 1 to 6 in file listdir

Answer: “sed -e '1,6d;' listdir”

50. Give a command to delete lines from 10 to the end of the file listdir

Answer: “sed -e '1,$d;' listdir”