Answers to the following Questions:

**Ans :-Navigate to a Specific Directory:** Use cd /path/to/directory to change to the desired directory.

1. How to see detailed information about files and directories using ls?

**Detailed File Info Using ls:** Use ls -l to display file permissions, ownership, size, and modification date.

1. How to create multiple directories in Linux using `mkdir` command?

Ans:- **Create Multiple Directories:** Use mkdir dir1 dir2 dir3 or mkdir -p parent/child/grandchild for nested directories.

1. How to remove multiple files at once with rm?

Ans:- **Remove Multiple Files:** Use rm file1 file2 file3 to delete multiple files at once.

1. Can rm be used to delete directories?

**Ans:-Delete Directories with rm:** Use rm -r directory\_name to remove directories and their contents.

1. How Do You Copy Files and Directories in Linux?

**Ans:-Copy Files and Directories:** Use cp source destination for files, and cp -r source\_dir destination\_dir for directories.

1. How to Rename a file in Linux Using mv Command.

**Ans:-Rename a File:** Use mv old\_filename new\_filename to rename a file.

1. How to Move Multiple files in Linux Using mv Command

**Ans:-Move Multiple Files:** Use mv file1 file2 directory/ to move multiple files into a directory.

1. How to Create Multiple Empty Files by Using Touch Command in Linux

**Ans:-Create Multiple Empty Files:** Use touch file1 file2 file3 to create multiple empty files.

1. How to View the Content of Multiple Files in Linux

**Ans:-View Content of Multiple Files:** Use cat file1 file2 to display contents of multiple files.

1. How to Create a file and add content in Linux Using `cat` Command

**Ans:-Create a File & Add Content:** Use cat > filename and type the content, then press Ctrl+D to save.

1. How to Append the Contents of One File to the End of Another File using cat

**Ans:-Append File Content:** Use cat file1 >> file2 to append contents of file1 to file2.

command

13. How to use cat command if the file has a lot of content and can’t fit in the

terminal.

**Ans:-View Large Files with cat:** Use cat filename | less or cat filename | more to scroll through content.

1. How to Merge Contents of Multiple Files Using `cat` Command

**Ans:-Merge Multiple Files:** Use cat file1 file2 > merged\_file to combine multiple files into one.

1. How to use cat Command to Append to an Existing File

**Ans:-Append to an Existing File:** Use cat >> filename and type content, then press Ctrl+D to save.

1. What is “chmod 777 “, “chmod 755” and “chmod +x “or “chmod a+x”? How to navigate to a Specific Directory?

**Ans:-File Permissions (chmod)**: chmod 777 gives full access to everyone, chmod 755 allows read & execute for others, chmod +x or chmod a+x makes a file executable.

1. How to find the number of lines that matches the given string/pattern

**Ans:\_Count Matching Lines:** Use grep -c "pattern" filename to count lines matching a pattern.

1. How to display the files that contains the given string/pattern.

**Ans:-Find Files Containing a String:** Use grep -l "pattern" \* to list files that contain the given pattern.

1. How to show the line number of file with the line matched.

**Ans:-Show Line Numbers of Matches:** Use grep -n "pattern" filename to display matching lines with numbers.

1. How to match the lines that start with a string using grep

**Ans:-Match Lines Starting with a String:** Use grep "^string" filename to find lines beginning with a specific word.

1. Can the ‘sort’ command be used to sort files in descending order by default?

**Ans:-Sort in Descending Order:** Use sort -r filename since the default sort is ascending.

1. How can I sort a file based on a specific column using the ‘sort’ command?

**Ans:-Sort by Specific Column:** Use sort -k column\_number filename to sort a file based on a specific column.

Part1 Outputs of the following commands

1. Pwd = /home/user

2. cd = cd /home/user/Documents

3. ls = file1.txt file2.txt directory1 directory2

4. mkdir = mkdir new\_folder

5. rm = rm file1.txt

6. touch = touch newfile.txt

7. hostname = my-laptop

8. cat = cat file1.txt

Hello, this is a file.

9. chmod = chmod 755 script.sh

10. echo = echo "Hello, World!"

Hello, World!

11. grep = grep "error" log.txt

Error: File not found

12. fgrep = fgrep "Hello" file.txt

Hello, this is a test file.

13. mv = mv oldname.txt newname.txt

14. cp = cp file1.txt backup/

15. more = more largefile.txt

16. less = less file.txt

17. wc = wc file.txt

10 50 300 file.txt

18. awk = awk '{print $1}' file.txt

19. sed = sed 's/old/new/g' file.txt

20. tail = tail log.txt