**Linux Commands**

1. **A) Provide the Linux command for identifying and terminating a specific process using its Process ID (PID).**

**B) Write Script to see current date, time, username, and current directory.**

2. **List the essential Linux utility commands**

* **Find**
* **Date**
* **Mount**
* **Time**
* **Cal**

1. **Given the output of the command ls -l, analyze and provide information about the files and directories listed, including permissions, owner, size, and modification time.**
2. **A) Write the linux command to show the use of AWK command.**

**B) Using appropriate commands, create a file named "report.txt," add some text to it, and then copy it to a subdirectory named "backup."**

**5. Write the functionalities of Linux file content commands such as tac, tail, head, rename, and more.**

**6. Write the functionalities of the rename, mv, cp, rm, cat, and touch commands within the realm of Linux file operations.**

1. **Implement the features for Linux directory commands, encompassing functions such as pwd, mkdir, rmdir, ls, and cd.**

**8.Write Linux commands for the following.**

1. **To create a directory in your home directory having 2 subdirectories.**
2. **In the first subdirectory, create 3 different files with different content in each of them.**
3. **Copy the first file from the first subdirectory to the second subdirectory.**
4. **Create one more file in the second subdirectory, which has the output of the number of users and number of files.**
5. **To list all the files which starts with either a or A.**
6. **Execute the following Linux commands:**
7. **Create a new file named "confidential.txt" within the "docs" directory.**
8. **Modify the permissions of "confidential.txt" to allow read and write access only to the owner.**
9. **Present the current date and time of the system.**
10. **Examine the active processes on the system.**
11. **Identify and terminate the process with the highest CPU usage.**
12. **Compose Linux commands for the following operations:**

* Utilize **uniq.**
* Implement **comm.**
* Apply **egrep.**
* Utilize **sed.**
* Make use of **zcat.**

**Shell Scripts**

1. **Write a shell script to evaluate arithmetic operations.**
2. **Develop a shell script to ascertain whether a specified year is a leap year or not.**
3. **Develop a shell script that calculates the factorial (n!) of a given number.**
4. **Create a shell script to compute the simple interest for a given principal amount, interest rate, and time period.**
5. **Write a Shell Script to generate Fibonacci Series.**
6. **Write a shell script to add the digits of a number.**
7. **Write a shell script to check whether a number entered is prime or not.**
8. **Create a shell script to determine whether a provided number is an Armstrong number or not.**
9. **Craft a shell script to produce a multiplication table.**
10. **Create a shell script to demonstrate the use of a switch-case construct.**