

Q1. A) Write and execute the following Commands on Linux

- i) Create directory assignment1 and rename it to One.txt.
`mkdir assignment1`
`mv assignment1 One.txt`
- ii) Create a two files and append the contents of one file to the end of another file.
`cat file2.txt >> file1.txt`
- iii) Create any text file and count number of bytes, words, lines and length of longest line in file.
`wc testfile.txt`
`awk '{ print length($0) }' | sort -n | tail -1' }' testfile.txt`
- iv) Consider the below file as an input.

`$cat > geekfile.txt`

unix is great os. unix is open source. unix is free os. Unix linux which one you choose.

uNix is easy to learn.unix is a multiuser os. Learn unix . unix is a powerful.

find the number of lines that matches the pattern “unix”

`grep -o 'unix' geekfile.txt | wc -l`

- v) Create a file name ‘.....’containing five lines and execute the following set of commands of vi editor and describe the result on the paper.Command R and D
`Press 'R' to enter replace mode.`
`Press 'D' to delete the current line.`

Q1.B) Write a shell script to calculate the gross salary.

```
#!/bin/bash
echo "Enter Basic Salary: "
read basic_salary
echo "Enter Allowances: "
read allowances
echo "Enter Deductions: "
read deductions
gross_salary=$((basic_salary + allowances - deductions))
echo "Gross Salary: $gross_salary"
```

Q2. Write menu driven program to perform the following tasks

- a) Show today's date and time
- b) Show files in current working directory.
- c) Show calendar

```
#!/bin/bash
echo '\tMenu Implementation'
echo -----
echo 1.Today DATE
echo 2.files of the system
echo 3.Show calendar
echo Enter your choice
read choice
case $choice in
1)date;;
2)ls;;
3)cal;;
*)echo This is not a choice
esac
```

Or

Q2. Write a shell script that accepts two integers as its arguments and computers the value of first number raised to the power of the second number.

```
#!/bin/bash

if [ $# -ne 2 ]; then
    echo "Invalid number of arguments"
    exit
fi

pwr=$(echo "$1^$2" | bc)

echo "$1 raised to $2 is: $pwr"
```