

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

- i) Create a file student.txt. Display first 5 lines of student.txt.

```
cat > student.txt  
head -n 5 student.txt
```

- ii) Create a file one.txt which contains id, name, designation, Address using Linux command.

```
Cat > one.txt  
Id 123  
Name abc  
Designation software engineer  
Address pune
```

- iii) Create any text file and count number of bytes, words and lines in file. Display longest length in file.

```
wc myfile.txt  
awk '{ if (length > max) max = length } END {  
print "Longest length:", max }' myfile.txt
```

- iv) Create file as follows and write commands for same.

**Linux Unix Solaris HPUNIX AIX**

Write a linux command to merge a file by pasting the data into 2 columns

```
echo -e "Linux\nUnix\nSolaris\nHPUNIX\nAIX"  
> myfile.txt  
pr -2 -t myfile.txt
```

- v) Write a control vi command to Moves screen up one line.

Ctrl-y

**Q1.B) Write a shell script to accept a file name and display number of words in a file.**

```
#!/bin/bash  
filename="$1"  
if [ ! -f "$filename" ]; then  
    echo "Error: File '$filename' not found."  
    exit 1  
fi  
num_words=$(wc -w < "$filename")  
echo "Number of words in '$filename':  
$num_words"
```

**Q2. Write a shell script to check greatest number among 3 numbers.**

```
#!/bin/bash  
echo "Enter the first number:"  
read num1  
echo "Enter the second number:"  
read num2  
echo "Enter the third number:"  
read num3  
  
if [ $num1 -gt $num2 ] && [ $num1 -gt $num3 ]; then  
    echo "$num1 is the greatest number."  
elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3 ];  
then  
    echo "$num2 is the greatest number."  
else  
    echo "$num3 is the greatest number."  
fi
```

**Or**

**Q2. Write a shell script to find factorial of number.**

```
#!/bin/bash  
echo "enter a number"  
read number  
fact=1  
for ((i=2;i<=$number;i++))  
{  
    fact=$((fact * i))  
}  
echo "factorial of number is $fact"
```