

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) Write a command to display contents of file in reverse order.

```
tac filename.txt
```

- iii) Count number of files in current working directory.

```
ls | wc -l
```

- iv) Consider the below file as an input.

```
$cat > geekfile.txt
```

**Unix is great os. unix is opensource.
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 -c "unix" filename.txt
```

- v) Write a line 'welcome to operating system'
then write a vi command to deletes 2 words
beginning with 'e' from welcome word.

```
dw
```

Q1.B) Write a shell script to print out the length of longest (number of characters) line in a file.

```
#!/bin/bash
```

```
echo "Enter file:"
```

```
read filename
```

```
longest_length=$(awk '{ if (length > max) max =  
length } END { print max }' "$filename")
```

```
echo "Length of the longest line in '$filename':  
$longest_length"
```

Q2. Write a shell script that accepts file name as argument and converts all of them to uppercase, provided they exist in the current directory.

```
#!/bin/bash
```

```
for file in "$@"; do
```

```
    if [ -f "$file" ]; then
```

```
        mv "$file" "$(echo "$file" | tr '[:lower:]'
```

```
        '[:upper:]')"
```

```
        echo "File '$file' converted to uppercase."
```

```
    else
```

```
        echo "File '$file' does not exist or is not a  
        regular file."
```

```
    fi
```

```
done
```

Or

Q2. Write a shell script that deletes all lines containing a specified word in one or more files supplied as arguments to it.

```
#!/bin/bash
```

```
file="$1"
```

```
word="$2"
```

```
echo "File before removing the word \"$word\":"
```

```
cat "$file"
```

```
sed -i "/$word/d" "$file"
```

```
echo "File after removing the word \"$word\":"
```

```
cat "$file"
```