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

i) Display the current date and time.
cal
date

ii) Display list of all files ending with .txt from current working directory.
ls *.txtx

iii) Count the number of files in current working directory.
ls -l | wc –l

iv) Create two file having name as state.txt and capital.txt. Each file contains 3 names of the Indian states and capitals respectively.
Write a linux command to merge the files in sequentially manner.

paste state.txt capital.txt > merged_file.txt

v) Write a control vi command to Move Forward one full screen.
Ctrl-f

Q1. B) Write a shell script to evaluate basic arithmetic operations.

```
#!/bin/bash

echo "Enter the first number:"
read a
echo "Enter the second number:"
read b

echo "Addition: $(expr $a + $b)"
echo "Subtraction: $(expr $a - $b)"
echo "Multiplication: $(expr $a \* $b)"
echo "Division: $(expr $a / $b)"
```

Q2. Write a shell script to check whether two numbers are same or different.

```
#!/bin/bash

echo "Enter a:"
read a

echo "Enter b:"
read b

if [ $a -eq $b ]; then
    echo "a is equal to b"
else
    echo "a is not equal to b"
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"
```