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

i) Create a file a.txt and move file in b.txt

```
cat > a.txt
cat > b.txt
cat a.txt >> b.txt
```

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

```
ls *.txt
```

iii) Create File Biodata.txt print length of longest line in a file.

```
cat > biodata.txt
wc -l biodata.txt
```

iv) Create directory and display only file names in that directory.

```
mkdir fybca
cd fybca
ls
```

v) Write the vi command to recover the file 'student' from system crash.

```
vi /path/to/student
vim -r student
```

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 a shell script to test a given file and return a message whether the file is a block device, a character device or a normal file.

```
#!/bin/bash

echo "Enter a filename:"
read filename

if [ -b "$filename" ]; then
   status="block"
elif [ -c "$filename" ]; then
   echo "File is character device"
else
   echo "File is normal"
fi
```

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"
```