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

i) Move all files *.sh from current directory to root directory.

```
mv *.sh
```

ii) Create file a.txt and display only duplicate lines.

```
cat > a.txt
sort a.txt | uniq -d
```

iii) Change permission of a.txt as read, write access for owner, read, execute for group and only execute for other.

```
chmod 651 a.txt
```

iv) Write and execute command to check the free and used memory status of system in MB and GB.

```
free -m
free -g
```

v) Write Vi command to delete N words beginning with character under cursor in any text file.

```
dNw
```

Q1. B) Write a shell script that displays a list of files in current directory to which the user has read, write and execute permissions.

```
#!/bin/bash
echo "Current working directory info"
var=$(pwd)
ls -l "$var"
```

Q2. Write menu driven program to perform arithmetic operations like +, - , *, /

```
#!/bin/bash
echo "Enter the first number:"
read a
echo "Enter the second number:"
read b

while true; do
   echo -e "\nChoose an operation:"
   echo "1. Addition"
   echo "2. Subtraction"
   echo "3. Multiplication"
   echo "4. Division"
   echo "5. Exit"
   read -p "Enter your choice: " choice

   case $choice in
      1)
         echo "Result of addition: $(($a + $b))"
         ;;
      2)
         echo "Result of subtraction: $(($a - $b))"
         ;;
      3)
         echo "Result of multiplication: $(($a * $b))"
         ;;
      4)
         if [ $b -ne 0 ]; then
            echo "Result of division: $(($a / $b))"
         else
            echo "Error: Division by zero"
         fi
         ;;
      5)
         echo "Exiting..."
         exit 0
         ;;
      *)
         echo "Invalid choice. Please enter a number
between 1 and 5."
         ;;
   esac
done
```

OR

Q2. Write a shell script that accepts any number of arguments and prints them in a reverse order.

```
#!/bin/bash
for((i=$#; i>0; i--)); do
        echo "${!i}"
   done
```