1. How i can see from command prompt that on which directory you are ?
   - **PWD**
2. How i can change permission of file to read only for that user ?
   - **chmod u+r <filename>**
3. how i can create new user ?
   - **Useradd <username>**
4. how i can install mysql in ubuntu ?
   - **sudo apt-get install mysql**
5. How i can set insert mode on VI editor ? And how i can save data in file using VI editor ?
   - **Press 'i' for insert mode and press ':w' to save data in file.**
6. if i want to search from history of command then which short cut i can use ?
   - **Using UP-ARROW key**
7. Write a command which gives me running mysql process and its pid
   - **ps | grep mysql**
8. which command helps me to copy file from my local machine to remote machine ? Give one example
   - **scp for.sh nasit@rapidadmin-desktop:/bin/**
9. Write a command that will display all .txt files, including its individual permission.
   - **ls -l | grep ".txt" OR ls -l *.txt**
10. How can i terminate all process at once ?
   - **killall**
11. how i can get first 10 lines of any file ?
   - **head <filename>**
12. how i can know free space on disk ?
   - **free -h**
13. write command which remove folder from my machine.
   - **rmdir**
14. Which command helps me to search contents of a file for particular pattern ?
   - **grep**
15. Write command to display current date in the form dd/mm/yyyy.
   - **date "+%d/%m/%Y"**
16. how i can remove all lines from file ? (without removing that file)
   - **truncate -s 0 <filename>**
   - **Overwrite the file using cat (for example: cat > <filename)**
   - **In command mode of vi editor press ":1,$d"**
17. The permission rwxr—r— represented in octal expression will be ?

A. 777

B. 511

C. 744

D. 711

18. Which command can be use for change user password ?
   - passwd

19. how and where i can set test.rapidops.com against localhost ?
    -
20. Create file and set its group as root
    - touch <filename>
    - Chgrp root <filename>

Linux Exercise
1. Write a shell script that adds an extension ".new" to all the files in the directory.

```
#!/bin/bash

changeExt(){
        for i in "$1"/* ; do
        mv $i $i.new
        done
}

changeExt .
```

2. Delete file which has special characters. " -", "—", "*", "$"

```
#!/bin/bash

remFile(){
        for i in ./*
        do
                if [ -f $i ] ; then
                value=`echo "$i" | cut -c 3-`
                if [[ ( $value == *[-]* ) || ( $value == *[_]* ) || ( $value == *[\*]*  ) || ( $value == *[\$]* ) ]]  ; then
                        echo "Removed: $value"
                        rm $value
                fi
                #echo "$i file"
                fi
        done
}
remFile
```

3. Write a shell script that take two input numbers from user at runtime and display arithmetic operation on that numbers, find out max, & min number from them, find weather that numbers negative or positive.

```
#!/bin/bash

read -p "Enter input 1: " ip1
read -p "Enter input 2: " ip2

echo "\nArithmetic Operations are :\n"
echo "Addition is "$(( $ip1 + $ip2 ));
echo "Substraction is "$(( $ip1 - $ip2 ));
echo "Multiplication is "$(( $ip1 * $ip2  ))
echo "Division is "$(( $ip1 / $ip2  ))
echo "Remaider is "$(( $ip1 % $ip2  ))

echo "\n"

if [ $ip1 -gt $ip2 ] ; then
        echo "$ip1 is Maximum"
        echo "$ip2 is Minimum"
else
        echo "$ip2 is Maximum"
        echo "$ip1 is Minimum"
fi

if [ $ip1 -eq $ip2 ] ; then
        echo "$ip1 and $ip2 are equal"
else
        echo "$ip1 and $ip2 are not equal"
fi


if [ $ip1 -gt 0 ] ; then
        echo "$ip1 is Positive"
else
        echo "$ip1 is Negative"
fi

if [ $ip2 -gt 0 ] ; then
        echo "$ip2 is Positive"
else
        echo "$ip2 is Negative"
fi
```

4. Write a shell script that take one input number from user and print 1 to n number using three loops (For, while, until). (N = entered number)

```
#!/bin/bash

read -p " Enter number : " n

echo "Using for Loop"

for i in $(seq 0 $n) ; do
   echo $i
done

echo "Using While Loop"
i=0
while [ $i -le $n ] ; do
   echo $i
   i=$(( $i+1 ));
done

echo "Using Until Loop"
i=0
until [ $i -ge $n ] ; do
   echo $i
   i=$(( $i+1 ));
done
```

5. Write a shell script to display the last updated file of the newest file in a directory.

```
#!/bin/bash

echo `ls -pt | grep -v / | head -1`
```

6. Write a shell script to get the total count of the word “Linux” in all the “.txt” files and also across
files present in subdirectories.

```
#!/bin/bash

matches=$(grep -ro "a" * | wc -l)
echo "Total matches: $matches"
```

7. Write a shell script that copy all the directories, subdirectories and files from one location to another specific location.

```
#!/bin/bash

cp * $1
```

8. Display specific number of lines as follow:
1. Display first and last 10 lines of file contains
2. Display line no. 3 to 8 from file contains.
3. Display 7 lines and start from second last line in reverse manner.

```
#!/bin/bash

echo "All Lines "`cat sample`
echo "First 10 Lines : "`head sample`
echo "Last 10 Lines : "`tail sample`
echo "Line 3-8 : "`head -8 sample | tail -5`
echo "7 Lines from Last Second Line : "`tail -8 sample | head -7 | tac`
```

9. Perform following task:
1. Add two new users and two groups
2. Login as one user and then create new file
3. Send created file from one user to another user
4. Login as second user and copy that file from user2 to user1(in same system)

10. Ex. 10 Task to find all files from folder where file contains string 'abc'

```
#!/bin/bash

grep -rnwl "abc" *
```