**General Instructions:**

* **Follow the instructions given in each section.**
* **Make sure that you attempt the questions in order.**

**SECTION-A (10\*1 mark=10 marks)**

***(All questions are compulsory)***

Q1.Which command is used to view the IP configuration of a network interface in Linux?

**a. ifconfig**

b. ipconfig

c. netstat

d. traceroute

Q2.Which command is used to set the IP address of a network interface in Linux?

**a. ifconfig**

b. ipconfig

c. netstat

d. ping

Q3.Which command is used to renew the IP address of a network interface in Linux?

a. ifconfig

b. ipconfig /renew

**c. dhclient**

d. ping

Q4.Which command is used to test the connectivity between two hosts in Linux?

**a. ping**

b. traceroute

c. netstat

d. ifconfig

Q5.Which option is used with the ping command to specify the number of packets to send?

a. -s

b. -n

**c. -c**

d. -p

Q6.Which option is used with the ping command to set the packet size in bytes?

**a. -s**

b. -n

c. -c

d. -p

Q7.Which option is used with the ping command to specify the Time To Live (TTL) value?

**a. -t**

b. -T

c. -r

d. -R

Q8.Which command is used to trace the route between two hosts in Linux?

**a. traceroute**

b. ping

c. netstat

d. ifconfig

Q9.Which option is used with the traceroute command to specify the maximum number of hops to try?

**a. -m**

b. -M

c. -h

d. -H

Q10.Which option is used with the traceroute command to specify the type of packets to use?

a. -t

**b. -T**

c. -p

d. -P

**SECTION-B (5\*2 mark=10 marks)**

***(All questions are compulsory)***

Q11 Which command is used to display the routing table in Linux?

**a. netstat -r**

b. ifconfig

c. ping

d. traceroute

Q12 Which option is used with the netstat command to display listening sockets?

**a. -l**

b. -L

c. -s

d. -S

Q13 Which option is used with the netstat command to display network statistics?

**a. -s**

b. -S

c. -n

d. -N

Q14

Which command is used to display the Ethernet statistics in Linux?

**a. ethtool**

b. ifconfig

c. ping

d. traceroute

Q15 Which option is used with the ethtool command to display the driver information?

a. -d

b. -D

**c. -i**

d. -I

Answer: c. -i

**SECTION-C() (4x5 marks=20 marks)**

Q16) How do you redirect output to a file in a shell script in Linux? What is the purpose of doing it?

To redirect output to a file in a shell script in Linux, you can use the > or >> operators.

The > operator overwrites the contents of the file with the output of the command, while the >> operator appends the output to the end of the file. The purpose of saving the output of the commands in the file is to reuse it later to either compare the solutions or test the commands with those outputs.

Q17) What is the difference between shell script and shell command in linux?

A shell command is a single command that is executed from the command line. Cd, ls, pwd, mkdir, rmdir, echo etc. all these commands individually are called as Shell commands.

A shell script is a text file containing a series of commands that are executed by the shell program in Linux.

Q18) Create a directory named test\_shell. In this directory create a shell file named add\_file.sh . In this shell script take input of two numbers from the user and give the sum of the two numbers as output of the shell file execution.

mkdir test\_shell

cd test\_shell

touch add\_file.sh

vi add\_file.sh

!#/bin/bash

read num1

read num2

echo $((num1 + num2))

:wq

Q19) Create a directory named test\_shell. In this directory create a shell file named checkgt\_file.sh . In this shell script take input of two numbers from the user. If the num1 is greater than num2, print “num1 is greater than num2”, ensure that num1 and num2 here are just for reference, they should be replaced with actual numbers (given as input) in the output. If not, print “Couldn’t enter if block”.

mkdir test\_shell

cd test\_shell

touch checkgt\_file.sh

vi checkgt\_file.sh

!#/bin/bash

read num1

read num2

if [[ $num1 -gt $num2]]

then

echo “num1 is greater than num2”

else

echo “Couldn’t enter if block”

:wq