* **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 of the following is a process management command in Linux?

a) ls

**b) ps**

c) chmod

d) grep

Q2 Which command is used to display the current working directory in Linux?

a) ls

**b) pwd**

c) cd

d) echo

Q3 What is the root directory in Linux?

a) /root

b) /home

**c) /**

d) /var

Q4 Which of the following is a Linux distribution?

**a) Ubuntu**

b) Microsoft Windows

c) macOS d) iOS

Q5 Which command is used to change the permissions of a file in Linux?

**a) chmod**

b) chown

c) ls

d) mkdir

Q6 Which of the following is a file compression utility in Linux?

a) WinZip

**b) gzip**

c) WinRAR

d) 7-Zip

Q7 Which command is used to move a file in Linux?

a) rm

b) cp

**c) mv**

d) mkdir

Q8 Which of the following is a network monitoring tool in Linux?

**a) netstat**

b) Adobe Photoshop

c) Microsoft Excel

d) VLC

Q9 Which command is used to search for a file in Linux?

**a) find**

b) locate

c) search

d) grep

Q10 Which of the following is a file system in Linux?

a) NTFS

**b) ext4**

c) FAT32

d) HFS+

**SECTION-B (10\*2 mark=20 marks)**

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

Q11 A user executes the following command successfully:

$ chmod +x file1.txt

Which of the following is true of the output of this command?

a) The command results in adding execute permission to the user who ran this command

b) The command results in adding execute permission for the owner of the file

c) The command results in an error since the file is not an executable file

**d) The command results in adding execute permission for all users (i.e., user,group & others)**

Q12 After running this program, as you press ‘s’, what will be the output of the program?

#!/bin/bash

echo "press 's' to print Sanfoundry"

read var

if $var=s

then

echo "Sanfoundry"

else

echo "You did not press s"

fi

exit 0

a) Sanfoudry

b) You did not press s

**c) program will generate an error message**

d) none of the mentioned

Q13 What will be output of following command:

$ echo "The process id is" $$$$

a) The process id is $$

b) The process id is $<pid>$<pid>

**c) The process id is <pid><pid>**

d) The process id is $$$$

Q14 What would be the current working directory at the end of the following command sequence?

$ pwd

/home/user1/proj

$ cd src

$ cd generic

$ cd .

$ pwd

a) /home/user1/proj

b) /home/user1/proj/src

c) /home/user1

**d) /home/user1/proj/src/generic \*\*\*\*\*\*\*\***

Q15 Which command is used to display the contents of a file in Linux?

**a) cat**

b) ls

c) cd

d) chmod

Q16 Which of the following is a Linux-based mobile operating system?

**a) Android**

b) iOS

c) Windows Mobile

d) BlackBerry OS

Q17 Which command is used to display the list of users in Linux?

a) ls

b) who

**c) users**

d) groups

Q18 Which of the following is a file transfer protocol used in Linux?

**a) FTP**

b) HTTP

c) SMTP

d) DNS

Q19 Which command is used to display the system information in Linux?

a) sysinfo

b) info

**c) uname**

d) version

Q20 Which of the following is a command to create a symbolic link in Linux?

**a) ln -s**

b) ln -r

c) ln -f

d) ln -x

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

Q21 Amit is trying to install a software package on his Linux system but is receiving an error message stating that

the package dependencies are not met. What could be the issue and how can he resolve it?

**Answer: The issue is most likely due to missing dependencies that the software package needs to function properly. Amit can resolve this issue by installing the missing dependencies manually or by using a package manager tool that can automatically install the dependencies for him.**

Q22 Shyama is working on a Linux server and needs to change the permissions of a file so that only the owner can

read,write and execute it. Which command should she use to accomplish this?

**Answer: Shyama** **can use the chmod command with the following syntax:** chmod 700 filename**. This will set the file permissions so that the owner has read, write, and execute permissions, while all other users have no permissions.**

Q23 Shivam has created a new user account on his Linux system and wants to grant the user access to a specific

directory but limit their permissions to read-only. What command should he use to accomplish this?

**Answer: Shivam can use the chown command to change the ownership of the directory to the new user account, and then use the chmod command to change the directory permissions so that only the owner has read and execute permissions. The command would be:** chown username directoryname followed by chmod 500 directoryname.

Q24 Shambhavi has been experiencing issues with her Linux system and suspects that it might be due to a corrupted

file system. What command can she use to check and repair any errors in the file system?

**Answer: Shambhavi can use the fsck command to check and repair errors in the file system. The command can be used with various options, depending on the type of file system and the extent of the errors. The basic command syntax is** fsck [options] device, **where device is the name of the file system device to check. Shambhavi should make sure to run the command with administrative privileges (as root).**

**SECTION-D (1x10 marks=10 marks)**

Q25 Write bash script function that takes a URL as an argument and downloads the file from the internet.

**Answer**:

#!/bin/bash

function download\_file() {

url=$1

filename=$(basename $url)

curl -o $filename $url

echo "Downloaded file: $filename"

}

download\_file "https://example.com/file.zip"

# the download\_file function takes a single argument, which is the URL of the file to download. The #basename command is used to extract the filename from the URL, which is used as the output #filename for the downloaded file. The curl command is used to download the file, and the -o option #is used to specify the output filename. Finally, a message is printed to the console indicating the #name of the downloaded file.