

## **Practical 5: Compression, System Backup, and Software Installation**

### **Section A: Short Questions**

1. The location that contains a copy of files; it typically created by a backup utility is known as \_\_\_\_\_.  
archive object/file
2. A command used to view the contents of a file created with bzip2 to Standard Output is \_\_\_\_\_.  
bzip2 filename.bz2  
OR  
bzip2 -d filename.bz2  
OR  
bzip2 -l filename.bz2
3. A command used to view the contents of a file created with bzip2 to Standard Output in a page by-page fashion is \_\_\_\_\_.  
bzip2 -l filename.bz2  
OR  
bzip2 -p filename.bz2
4. A command used to decompress files compressed by the bzip2 command is \_\_\_\_\_.  
bzip2 -d filename.bz2  
OR  
bunzip filename.bz2
5. The process by which files are reduced in size by a \_\_\_\_\_.  
compression
6. The amount of compression that occurred during compression is known as \_\_\_\_\_.  
compression ratio
7. A dpkg command that used to install, query, and remove DPM packages is \_\_\_\_\_.  
sudo dpkg -r (dpkg --remove) / dpkg -i (dpkg --install) / dpkg-query
8. A rpm command that used to install, query, and remove RPM packages is \_\_\_\_\_.  
sudo rpm -e (rpm --erase) /rpm -i (rpm --install) /rpm -q (rpm --query)
9. A more user-friendly front-end package management utility/tool that used to install and upgrade RPM packages from software repositories, as well as remove installed RPM packages is \_\_\_\_\_.  
yum
10. The process whereby files are copied to an archive is known as \_\_\_\_\_.  
tar (tape archive) OR system backup

### **Section B: MCQs & (True / False)**

1. Which of the following commands extract an archive?
  - a. cpio -vocBL /dev/fd0
  - b. cpio -vicdu -I /dev/fd0
  - c. cpio -vicdu -O /dev/fd0
  - d. cpio -vti -I /dev/fd0
2. Which of the following commands can be used to list the files contained within an installed RPM package?
  - a. rpm -qa packagename
  - b. rpm -qi packagename
  - c. rpm -ql packagename

- d. rpm -q packagename
3. Which of the following command can be used to remove the test DPM package, including any test configuration files.
- a. dpkg remove test
  - b. apt-get remove test
  - c. dpkg purge test
  - d. apt-get purge test
- pg. 1
4. Which of the following commands creates an archive?
- a. tar -cvf /dev/st0
  - b. tar -xvf /dev/st0
  - c. tar -tvf /dev/st0
  - d. tar -zcvf /dev/st0
5. Which of the following commands can be used to search for packages that contain the word "oobla" on RPM software repositories?
- a. yum search oobla
  - b. rpm -qS oobla
  - c. yum list oobla
  - d. rpm -ql oobla
6. Which option to the dpkg command can be used to list the files that comprise a package?
- a. -l
  - b. -L
  - c. -s
  - d. -i
7. Which option to the rpm command can be used to remove a package from the system?
- a. -r
  - b. -e
  - c. -u
  - d. -U
8. The Debian Package Manager (DPM) is the default package manager used by Fedora 20. (True/False)
9. To install a new program from RPM software repositories on the Internet, you can use the yum update programname command. (True/False)
10. Most source code is available on the Internet in tarball format. (True/False)

### Section C

**Write a "dpkg" related command (options) for the following tasks (part**

**a-d):**

- a. List all the packages installed on your system.

dpkg -list

OR

dpkg -l

- b. Check whether **zip** package installed or not.

dpkg -s zip

OR

dpkg -query -s zip

- c. Check the location of **xeyes** package installed.

dpkg -L xeyes

d. Install all **.deb** packages from the directory called **debpackages**

```
sudo dpkg /debpackages/* deb
```

**OR**

```
sudo dpkg --install /debpackages/* deb
```

e. Create a compressed **MyImages-14-09-12.tar.gz** file for the directory **/home/MyImages**.

```
tar -czvf Mymages-14-09-12.tar.gz /home/MyImages
```

**OR**

```
Tar -czvf Mymages-14-09-12.tar.gz /home/MyImages/*
```

### **Section D**

As a system administrator, you are assigned to perform the following tasks:

- (i) Create a shell script called **“mybackupscript”** to be located under **“/tmp”** directory in order to back up all the data store under **“/mydir”** directory into a back up archive file called **“mybackupfile”**. The back up archive file is to be stored under **“/data”** directory.

```
nano /tmp/mybackupscript
```

**OR**

```
vi /tmp/mybackupscript
```

```
tar -cvf /data/mybackupfile /mydir/*
```

**OR**

```
tar -cvf /data/mybackupfile /mydir
```

- (ii) Schedule a user cron job to run the above **“mybackupscript”** created in part

(i) on 2:30 am from Monday to Friday in December month.

```
crontab -e
```

```
30 02 * 12 1-5 /tmp/mybackupscript
```

### **Section E**

Schedule a system cron job with the following requirement:

-To remove the directory **“/root/backup”**, and any files and directories it contains as root user on first day of December month at 4:30 pm.

```
nano /etc/crontab
```

```
30 16 1 12 *root rm -r /root/backup
```