



## LONG LABORATORY

Name of the Student : Bibek behesa  
Class : CSE - A Semester : VI  
Roll Number : 

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Course Code : ACS1041 Course Name : Linux Lab  
Name of the Course Faculty : B. Sandeep Kishore Faculty ID : 11142  
Exercise Number : 4, 5 Week Number : 4, 5 Date :

S. No.	Exercise Number	EXERCISE NAME	MARKS AWARDED					
			Aim/ Preparation	Algorithm / Procedure	Source Code	Program Execution	Viva - Voce	Total
				Performance in the Lab	Calculations and Graphs	Results and Error Analysis		
1	4.1	Hand & Symbolic	4	2	2	4	4	20
2	4.2	Network Utilities						
3	4.3	Tape archive & zip						
4								
5	5.1	Displaying files	4	2	2	4	4	20
6	5.2	Moving files						
7	5.3	Displaying logged in users after a a type specified time.						
8								
9								
10								
11								
12								

Signature of the Student

Signature of the Faculty

## Exercise on Process, Text, Network and backup

### Utilities

#### 4.1 Hard links and symbolic links.

A link is a special file that acts as a reference to another file or directory. It provides an alternative name to access the same content.

e.g.: /usr/bin/vi is a link to /etc/alternative/vi

Symbolic links stores the path of another file or directory

→ If original file is deleted, sym link becomes broken

Command to create symbolic link.

ln -s <file/directory> <symlink-name>

Identification:-

ls -l

#### Hard link:

A hard link points directly to files. Node all hard links are equal file exists as long as at least one hard link exist.

Command to create hard link.

ln <existing-file> <hard-link-name>

Check node numbers:-

ls -i

Link Count

ls -l

Comparison Commands

cmp → byte-byte Comparison

cmp file1 file2

cmp -l file1 file2

diff → line by line

diff -t file1 file2

for:

translates or substitutes characters.

for [-cbs] in-string out-string

Q. 2) Network utilities.

ftp:

Transfer files between hosts-

ftp hostname

telnet

remove login from unix system.

telnet [-l user] host name

exist using (ctrl + l)

rsh : executes remote command

telnet connects to any host with telnet

server telnet hostname (port)

arp manage Apc cache (IP → mac mapping)

arp -a

arp -d host

arp -n

Q.3: Backup & compression utilities

tar → Archives multiple files-

tar gzip archive .gz files

tar xzvf archive.tar.gz

gzip/gunzip

gzip file.

gunzip file.

bzip2/bunzip2

bzip2 file

bunzip2 file.b22