Assignment:

① Methods to change the file permission -

→ Chmod +rwx filename to add permissions
→ chmod -rwx directoryname to remove permissions
→ chmod +x filename to allow executable permissions
→ chmod - wx filename to take out write and executable permission.

ls -l

- rw-rw-r--
↓
indicates file

Else, if it were a directory, d would have been shown.

drwxr-xr-x 2
↳ represents directory

-rw-rw-r--
↓
no execute permission

② Hard link:

A hard link acts as a copy (mirrored) of the selected file. It accesses the data available in original file. If the earlier selected file is deleted, the hard link to the file will still contain the data of that file.

Soft link:

A soft link acts as a pointer or a reference to the file name. It does not access the data available in the original file. If the earlier file is deleted, the soft link will be pointing to a file that does not exist anymore.

4① Command substitution is generally used to assign the output of a command to a variable.

Ex- #!/bin/sh

DATE = `date`
echo "Date is $DATE"

USERS = `who | wc -l`
echo "Logged in users are $USERS"
UP = `date ; uptime`
echo "Uptime is $UP"

⑨ set and shift

The set command is used to assigns a value to a variable (or multiple values to multiple variables).

Ex- To turn on the debugging information:

set -x

shift in UNIX is used to move the command line arguments to one position left.

Ex- shift n

Here, n is the no. of position by which you want to shift command-line arguments to the left if you do not specify, the default value of n is assumed to be 1.

⑩ Trap: Trap defines and activates handlers to run when the shell receives signals or other special conditions.

Ex- trap -l

Displays a list of signal names and their corresponding numbers.

(J) Here:

Here document refers to a special block of code that contains multi-line strings that will be redirected to a command.

```
echo $ vi upper.sh
for file in *
do
  if [-f $file]
  then
  echo $file | tr '[a-z]' '[A-Z]'
  fi
done
# get filename
  echo -n "Enter File Name: "
  read fileName
# Make sure file exists for reading
  if [ ! -f $fileName]
  then
  echo "Filename $fileName does not exists"
  exit 1
  fi
# convert uppercase to lowercase using
  tr command
  tr '[A-Z]' '[a-z]' < $fileName.
```

3. a) All files having inode no. 9076 (e-li)

find -inum <inode number>

find -inum <9076>

b) All directories having permission bbb

$ find -type d -perm bbb

c) All files that are not accessed for more than a year

$ find -atime +365 -type f

d) All files but not C files

$ find -not -iname "*.c"

Ans:- 6)

i)

(i) chmod 777 file.txt

(ii) chmod a+rwx file.txt

(ii)

(iv)

(i) chmod 000 file.txt

chmod a-rwx file.txt