**Quiz 5**

All Shell scripts should display usage function, they should also validate input arguments to be correct, use fuctions and recursion as much as possible.

1. Write a shell script to find the number of lines in a list of files using sed.

You should write a for loop to go through all files in a directory and then count the number of lines in each file, display it as:

./script <Full path to directory>

File1 has 45 lines

File2 has 20 lines

2 Files in total, 65 lines in total

And.

2. Write a shell script to substitute one pattern for another in a text file.

./script.sh oldpattern newpattern

A)

while read a ;

do

echo ${a//abc/XYZ} ; done < /tmp/file.txt > /tmp/file.txt.t ; mv /tmp/file.txt{.t,}

3. Write a shell script to print complete pathname associated with pid. User has to pass the PID from command line.

./script.sh PID

#/bin/bash

echo "Please enter the processor name"

read processname

ps -ef | grep $processname | grep -v grep | awk '{print $2}'

4. Write a shell script to print all users on system using awk.

Hint: Learn what is /etc/passwd file in Linux

5. Write a shell script to list the frequency of words used in a file.

Hint: Sort and uniq commands will help

A)for w in `filename`;

do

echo $w;

done|sort|uniq -c

6. Write a script to take backup of files changed in last 24 hours and archive them.

Hint: Read the Find command tutorial in Linux folder. We typically take backups of a folder by “tar”-ring the entire folders.

a) )#/bin/bash

echo " Please enter the directory name "

read directoryname

find $directoryname -mtime -1 -ls

oldfile=$1

newfile=$2

month=`date +%B`

year=`date +%Y`

prefix="frozenskys"

archivefile=$prefix.$month.$year.tar

# Check for existence of a compressed archive matching the naming convention

if [ -e $archivefile.gz ]

then

echo "Archive file $archivefile already exists..."

echo "Adding file '$oldfile' to existing tar archive..."

# Uncompress the archive, because you can't add a file to a

# compressed archive

gunzip $archivefile.gz

# Add the file to the archive

tar --append --file=$archivefile $oldfile

# Recompress the archive

gzip $archivefile

# No existing archive - create a new one and add the file

else

echo "Creating new archive file '$archivefile'..."

tar --create --file=$archivefile $oldfile

gzip $archivefile

fi

7. Write a shell script to determine if a particular service is active or not. For eg: if SSH service is active it should display yes and vice versa. Use netstat , ps commands etc

8. Write a shell script to remove spaces from filenames and replace it with underscore

Hint: you can use mv command to re-name files

9. Write a shell script which prints the df output in more formatted way as below

Filesystem Size Used Avail Capacity Mounted

/dev/sda1 446.71G 18.11G 405.88G 5% /

udev 10M 0 10M 0% /dev

tmpfs 1.14G 9.16M 1.13G 1% /run

a)df -sh

10. Write a shell script to summarize available disk space and present in a logical and readable fashion

Ans)

#!/bin/sh

# diskspace - summarize available disk space and present in a logical

# and readable fashion

tempfile="/tmp/available.$$"

trap "rm -f $tempfile" EXIT

cat << 'EOF' > $tempfile

{ sum += $4 }

END { mb = sum / 1024

gb = mb / 1024

printf "%.0f MB (%.2fGB) of available disk space\n", mb, gb

}

EOF

df -k | awk -f $tempfile

exit 0

11. Write a shell function to rename .txt files to .text

Ans. files=`ls -1 \*.txt`

for x in $files

do

mv $x "`basename $files .txt`.text"

done