**Quiz 7**

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

Ans

#!/bin/sh

echo –n “Please enter the first file name”

read fname

echo –n “Please enter the second file name”

read sname

for $fname in $\* –a $sname in $\*

do

n1 = `sed –n ‘$=’ $fname`

n2 = `sed –n ‘$=’ $sname`

total = `expr $((n1 + n2))`

echo Total number of lines inside both files: “$total”

done

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

./script.sh oldpattern newpattern

#!/bin/sh

echo –n “Enter your file name”

read fname

echo –n “Enter your older pattern”

read opattern

echo –n “Enter your new pattern”

sed “s/$opattern/$npattern/g” $fname

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/sh

echo –n “Please enter the PID”

read n1

z= `pwdx $n1`

echo Path name of the process with ID $z is : “$z”

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

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

#!/bin/sh

echo `awk –F ‘:’ ‘{print $1}’ /etc/passwd`

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

Hint: Sort and uniq commands will help

#!/bin/sh

echo –n “Please enter the file name”

read fname

cat $fname | tr ‘ ‘ ‘\012’ | sort | uniq –c | sort –rn

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.

#!/bin/sh

find . –type f –name “\*” –mtime +1 > newfolder

tar –cvf x.tar –T newfolder

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

#! /bin/sh

echo –n “Please enter the service name”

read servi

if [“`netstat –lnp | grep $servi`” == $servi]; then

echo “Service found”

else

echo “Service not found”

fi

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

#!/bin/sh

echo –n “Please enter the file name”

read fname

echo –n “Enter new file name”

read nfname

for file in fname

do

nfmane=${file// /\_}

mv "{$file}" "{$nfname}"

done

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

#!/bin/sh

echo “Disk information”

df -h

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

#!/bin/sh

df -h

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

#!/bin/sh

echo –n “Please enter the file name you want to change the extension”

read fname

for I in $fname;

do

mv –v $i ${i%.txt}.text