**Quiz 5**

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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

#!/bin/bash

for i in {“$1”..”$n”}

do

echo “File1 has $(sed -n '$=' $i) lines”

done

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

./script.sh oldpattern newpattern

# /bin/bash

sed 's/the/is/g' (file name)

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

./script.sh PID

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

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

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

cat test.txt | tr -c '[:alnum:]' '[\n\*]' | uniq -c | sort -nr

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.

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/bash

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/bash

ls | while read -r FILE

do

mv -v "$FILE" `echo $FILE | tr ' ' '\_' | tr -d '[{}(),\!]' | tr -d "\'" | tr '[A-Z]' '[a-z]' | sed 's/\_-\_/\_/g'`

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

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

#!/bin/sh

tempfile="/tmp/available.$$"

trap "rm -f $tempfile" EXIT

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

#!/bin/bash

read a

read b

mv $a $b