

# COSC 350 System Software: Mini Test #1

1. for i in \$(seq 1 100); do echo \$i >>numbs; done
2.
  - \$@ : all list of arguments
  - \$\*: all list of arguments
  - \$0: shell script name
  - \$#: number of argument passed
3.
  - a. We need provide location of bash sell. If location of bash is /bin/bash, first line of each script must start with #!/bin/bash.
  - b. Since a shell script is a ASCII code, it is created as r w \_ r \_ r \_ . We need to change it to executable by changing mode.  
       chmod +x filename.sh
4.
  - **Static library:** if a process include a static library, then each copy of static library need to be loaded for each process.
  - **Shared library:** only one copy of a shared library need to be loaded into the memory. It is shared by multiple active processes.

5.

```
#!/bin/sh
n=1
sum=0

for n in $*;
do
    let sum=sum+$n
done
echo "Sum of Arguments is $sum"

exit 0
```

6.

- |                  |                       |
|------------------|-----------------------|
| • echo vari      | <b>vari</b>           |
| • echo "\$vari"  | <b>How are you?</b>   |
| • echo 'vari'    | <b>\$vari</b>         |
| • echo \vari     | <b>\$vari</b>         |
| • echo \\$\$vari | <b>\$How are you?</b> |

7.

```
#!/bin/bash
# calculate factorial for a number

n=0
on=0
fact=1

echo -n "Enter number to find factorial : "
read n

on=$n

while [ $n -ge 1 ]
do
    let fact=fact*n
    let n--
done

echo "Factorial for $on is $fact"

exit 0
```

8.

```
#!/bin/sh
# directory.sh
# this shell display subdirectory in the current directory

for FILE in *
do
    if [ -d $FILE ]; then
        echo $FILE
    fi
done
exit 0
```

9.

```
#!/bin/bash

echo " Give an integer value. "
read num

for i in $(seq 1 $num);
do
    for j in $(seq 1 $i);
    do
        echo -n "$i"
    done
    echo ""
done

exit 0
```

10.

ls -l | less : output of ls -l will be input for less command  
ls -l > less : output of ls -l will be saved in file name "less"