OPERATING SYSTEM LAB

(ACCS-16406)

Submitted To: Submitted By:

Mrs Navneet Kaur Bawa Vanshika

1900295

CS2/4th sem

MACHINE EXERCISE

BASED ON SCRIPTING SHELL

**1.** **Write a Shell program to check if the given number is even or odd.**

echo "---- EVEN OR ODD IN SHELL SCRIPT -----

$ EVEN OR ODD IN SHELL SCRIPT

$ ENTER A NO:12

$ 12 IS EVEN NO

" echo -n "Enter a number:" read n echo -n

"RESULT: " if [ `expr $n % 2` == 0 ] then

echo "$n is even"

else echo "$n is Odd"

fi

**2. Write a Shell program to find the area and circumference of a circle**.

clear

echo "Enter the radious of the circle"

$ Enter the radius of the circle

$ 7

$ Area of circle is 153.86

$ Circumference of circle is 43.9

read r

area=$(echo "3.14\*$r\*$r" | bc ) circum=$(echo

"3.14\*2\*$r" | bc) echo "area of the circle is

" $area echo "circumference of the circle is

" $circum

**3.Write a Shell program to check if the given number is palindrome or not.**

echo enter n

read n num=0 on=$n

while [ $n -gt 0 ] do

num=$(expr $num \\*

$ enter n

$ 121

$ palindrome

10) k=$(expr $n % 10)

num=$(expr $num + $k)

n=$(expr $n / 10)

done if [ $num -eq

$on ] then echo

palindrome else echo

not palindrome fi

**4. Write a Shell program to check if the given number is prime or not.**

num=29

for((i=2; i<=num/2;

$ 29 is prime number

i++)) do if [

$((num%i)) -eq 0 ]

then

echo "$num is not a prime number." exit fi done

echo "$num is a prime number."

**5. Write a Shell program to find the largest number among three numbers.**

Echo “Enter Num1”

$ Enter Num1

$12

$ Enter Num2

$ 6

$ Enter Num3

$ 22

$ 22

read num1

echo “Enter Num2”

read num2

echo “Enter Num3”

read num3

if [ $num1 -gt $num2 ] && [ $num1 -gt $num3

] then echo $num1

elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3

] then echo $num2

else echo

$num3

Fi

**6. Write a Shell program to find the sum of digits of a number.**

Num=123 g=$Num s=0 while [ $Num -

$ sum of digit 123 is 6

gt 0 ] do k=$(( $Num % 10 ))

Num=$(( $Num / 10 )) s=$(( $s

+ $k )) done echo "sum of digits

of $g is : $s"

**7. Write a Shell program to print the reverse of a number.**

n=123465 sd=0

rev=0 while [ $n -gt 0 ] do sd=$(( $n % 10 )) rev=$((

$ Reverse number of entered digit is 54321

$rev \* 10 + $sd )) n=$(( $n / 10 )) done echo "Reverse

number of entered digit is $rev"

**8.Write a Shell program to generate Fibonacci series.**

$ The Fibonacci series is :

$ 0

$ 1

$ 1

$ 2

$ 3

N=3 a=0 b=1 echo "The

Fibonacci series is : " for ((

i=0; i<N; i++ )) do echo -n

"$a " fn=$((a + b)) a=$b

b=$fn done

**9. Write a Shell program to generate prime numbers between 1 and 50.**

#! /bin/bash for i in

{2..50} do y=$((i/2))

$ 2

$ 3

$ 4

$ 5

$ 7

$ 11

$ 13

$ 17

flag=0 for

((j=2;j<=$y;j++)) do if

((i%j==0)) then flag=1

fi done if ((flag==0))

then echo $i fi done

**10. Factorial using for loop.**

echo “ Enter a number:

” read num fact=1

$ Enter a number: 5

$ 120

while [ $num -gt 1 ] do fact=$((fact \* num))

#fact = fact \* num

num=$((num - 1)) #num = num - 1 done

echo $fact

**Thank you**

**Submitted by : Submitted to:**

Vani Mahendru Mrs. Navneet kaur

4th sem

Btech CSE