

LAB-5

1P Combinations of 1 2 3.

```
#!/bin/bash
for i in 1 2 3
do
  for j in 1 2 3
  do
    for k in 1 2 3
    do
      echo $i $j $k
    done
  done
done
```

Output:-

1 1	1 3 1	2 2 1	3 1 1	3 3 1
1 1 2	1 3 2	2 2 2	3 1 2	3 3 2
1 1 3	1 3 3	2 2 3	3 1 3	3 3 3
1 2 1	2 1 1	2 3 1	3 2 1	
1 2 2	2 1 2	2 3 2	3 2 2	
1 2 3	2 1 3	2 3 3	3 2 3	

2P Fibonacci Series.

```
#!/bin/bash
echo "Enter the end limit"
read n
n1 = 0
n2 = 1
echo "$n1 $n2 \c"
```

```
while [ $n -gt 2 ]
do
num = $(($n2 + $n1))
echo "$num \c"
n1 = $n2
n2 = $num
n = $(($n - 1))
done
```

Output:- Enter the end limit

10

0 1 1 2 3 5 8 13 21 34

3P. GCD and LCM of two numbers.

```
#!/bin/bash
echo "Enter two numbers"
read m
read n
temp = $(($m * $n))
while [ $m -ne $n ]
do
if [ $m -gt $n ]
then
m = $(($m - $n))
else
n = $(($n - $m))
fi
done
echo "GCD = $n"
lcm = $(($temp / $n))
echo "lcm: $lcm"
```


Output :- Enter two numbers

3

5

GCD=1

LCM=15

4P. Display Pass class of a student.

```
#!/bin/bash
```

```
echo "Enter your marks"
```

```
read marks
```

```
if [ $marks -le 40 ]
```

```
then
```

```
echo "fail"
```

```
elif [ $marks -ge 40 ]
```

```
then
```

```
echo "pass"
```

```
elif [ $marks -ge 40 ] && [ $marks -le 59 ]
```

```
then
```

```
echo "result: Second class"
```

```
elif [ $marks -ge 60 ] && [ $marks -le 85 ]
```

```
then
```

```
echo "result: First class"
```

```
elif [ $marks -gt 85 ]
```

```
then
```

```
echo "result: Distinction"
```

```
fi
```

Output :- Enter your marks.

84

pass.

5P. Give multiple file names as argument and search a pattern in the files.

```
#!/bin/bash
for f in $2 $3 $4
do
grep -l "$1" $f
done.
```

output:- sh grep.sh "bin" gcd.sh fib.sh a.txt
gcd.sh
fib.sh.

lll
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