MANJARA CHARLTABLE TRUST

RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI

EXPERIMENT NO. 10

grep, awk and perl scripts

a. Write a grep/egrep script to find the number of words, lines and characters in a file.

```
echo "Number of words in file.txt is:"
grep "" file.txt | wc -w
echo "Number of lines in file.txt is:"
grep "" file.txt | wc -l
echo "Number of characters in file.txt is:"
```

b. Write a grep script to display list of executable files in the directory.

Code:

grep "" file.txt | wc -c

Code:

```
ls -1 | grep '^[^d]..[sx]' | awk '{ print $9 }'
```

c. Write awk script to develop a Fibonacci Series.

```
Code:
awk 'BEGIN{
for(i=0;i<=10;i++)
if (i \le 1)
 x=0;
 y=1;
 print i;
 else
 z=x+y;
 print z;
 x=y;
 y=z;
 }
  }'
OR
seq 50 | awk 'BEGIN {a=1; b=1} {print a; c=a+b; a=b; b=c}'
```

d. Write awk script to display the pattern of given string or number.

Code:

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awk $\{for(i=1;i\leq NF;i++)\{if($i=="yyy")\{print $i\}\}\}$ file

Note:

NF is for the number of fields in the current record.

NR is for the number of records in the input file.

They are built in variables.

In above code, yyy is pattern to be checked.

e. Write a perl script to compute the power of a given number.

Code:

```
Save as: power.pl
Execute: perl power.pl
#!/usr/local/bin/perl
for ( my $i = 1; $i < 10; $i++ ) {
    print $i**2 . "\n";
}</pre>
```

f. Write a perl script to check whether a number is prime or not.

Code:

Save as: prime.pl

```
Execute: perl prime.pl

print "Enter a number";

$n=<>;
$d=0;
if($n==2)
{
print "Prime number \n";
}
else
{
for($c=2;$c<=$n-1;$c++)
{
if($n%$c==0)
{
$d=1;
break;
}
```

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```
if(d=1)
print "Not prime \n";
else
print "Prime number \n";
OR
print ("This is a prime number checker!\n");
print ("Enter a number below to check it:\n");
y = 0;
$num = <>;
for (\$i = \$num; \$i > 0; \$i--) {
  if (\$num % \$i == 0) {
     y += 1;
  }
if (y > 2) {
  print ("$num is not a prime!");
} else {
  print ("$num is a prime!");
```