Lab 8 assignment:

Q1:

```
n=int(input("Enter the number for factorial="))
r=int(input("r="))
def fact():
    fac=1
    i=1
    while i<=n :
        fac=fac*i
        i=i+1
    return fac
a=fact()
b=n-r


def factorial(b):
    fac=1
    i=1
    while i<=b :
        fac=fac*i
        i=i+1
    return fac
c=a/factorial(b)
print("The permutation of n and r is ",c)
```

Output:

Q2:

```
n = int(input("Enter the value "))
def factorfndr(x):
    print("factor of " , n ,"are",'\n' )
    for i in range (1,x+1):
        if x%i ==0:
            print(i)
factorfndr(n)
```

Output:

```
Enter the value 4
factor of  4 are

1
2
4
```

Q3:

```
#sum of first 10 num divi by 3and9
p=0
q=0
i=1
while True:
    if i%3 == 0 and i % 9 == 0:
        q=q+i
        p+=1
    if p==10:
        break
    i+=1
print(q)
```

Output:

```
495
```

Q4:

```
#find fabonacci sequence

p=int(input("How many terms? "))

q,r=0,1

z = 0

if p<=0:

   print("Please enter a positive
integer")

elif p==1:

   print("Fibonacci sequence
upto",p,":")

   print(q)

else:

   print()

   while z<p:

      print(q)

      nth= q+r

      # changes

      q= r

      r=nth

      z+=1
```

Output:

```
How many terms? 8

0
1
1
2
3
5
8
13
```