Q1. Write a Python Program to Display Fibonacci Sequence Using Recursion

```
def fibonacci(n):
    if n <= 1:
        return n
    else:
        return fibonacci(n - 1) + fibonacci(n - 2)
terms = int(input("Enter the number of terms: "))
if terms <= 0:
    print("Number of terms should be a positive integer.")
else:
    print("Fibonacci sequence:")
    for i in range(terms):
        print(fibonacci(i))
```

Q2. Write a Python Program to Find Factorial of Number Using Recursion?

```
def factorial(n):
    if n == 0:
        return 1
    else:
        return n * factorial(n - 1)
number = int(input("Enter a number: "))
if number < 0:
    print("Factorial is not defined for negative numbers.")
else:
    result = factorial(number)
    print("The factorial of", number, "is:", result)
```

Q3. Write a Python Program to calculate your Body Mass Index?

```
weight = float(input("Enter your weight in kilograms: "))
height = float(input("Enter your height in meters: "))
bmi = weight / (height ** 2)
print("Your Body Mass Index (BMI) is:", bmi)
```

Q4. Write a Python Program to calculate the natural logarithm of any number?

```
import math
number = float(input("Enter a number: "))
if number <= 0:
    print("Natural logarithm is only defined for positive numbers.")
else:
    logarithm = math.log(number)
    print("The natural logarithm of", number, "is:", logarithm)
```

Q5. Write a Python Program for cube sum of first n natural numbers?

```
def cube_sum(n):
    sum = 0
    for i in range(1, n + 1):
        sum += i ** 3
    return sum
n = int(input("Enter the value of n: "))
if n <= 0:
    print("n should be a positive integer.")
else:
    result = cube_sum(n)
    print("The cube sum of the first", n, "natural numbers is:", result)
```