8. Write a program to generate all the prime numbers using recursion

PROGRAM:

```python
def is_prime(n, i=2):
    if n <= 2:
        return True if n == 2 else False
    if n % i == 0:
        return False
    if i * i > n:
        return True
    return is_prime(n, i + 1)
print("Primes between 1 to n is:")
def generate_primes(n):
    if n > 1:
        generate_primes(n - 1)
        if is_prime(n):
            print(n," ",end="")
generate_primes(20)
```

INPUT:

Enter the number:20

OUTPUT:

```
Primes between 1 to n is:
2  3  5  7  11  13  17  19
```

TIME COMPLEXITY:

Time complexity of the above code is

f(n)=O(n)