Pratical no :-6

Q1)

#Design a program for accepting decimal number divisible by 2.

```python
def stateQ0(n):
    print("Q0->", end=" ")
    if (len(n)==0):
        print("\n ***string accepted***")
    else:
        if(n[0]=='0'):
            print("inpurt 0 ",end=" ")
            stateQ0(n[1:])
        elif (n[0]=='1'):
            print("input 1",end="")
            stateQ1(n[1:])


def stateQ1(n):
    print("Q1->", end=" ")
    if (len(n)==0):
        print("\n ***string not accepted***")
    else:
        if(n[0]=='0'):
            print("inpurt 0 ",end=" ")
            stateQ0(n[1:])
        elif (n[0]=='1'):
            print("input 1",end="")
            stateQ1(n[1:])


n=int(input("Enter a decimal no:"))
#converting number to binary
n = bin(n).replace("0b", "")
```

print(n)

print("Transition state:")

stateQ0(n)

o/p:-

```
= RESTART: G:/SHRUSHTI 07/TOC/PRACTICAL NO 6/pract6a.py
Enter a decimal no:9
1001
Transition state:
Q0-> input 1Q1-> inpurt 0  Q0-> inpurt 0  Q0-> input 1Q1->
 ***string not accepted***

============================= RESTART: G:/SHRUSHTI 07/TOC/PRACTICAL
Enter a decimal no:8
1000
Transition state:
Q0-> input 1Q1-> inpurt 0  Q0-> inpurt 0  Q0-> inpurt 0  Q0->
 ***string accepted***
```