

Assignment -3
Python Programming

Assignment Date	26 September 2022
Student Name	Shreein Fathima S
Student Roll Number	621119106022
Maximum Marks	2 Marks

Question:

Write a Python code for blinking LED and Traffic lights for Raspberry pi.

Solution:

PROGRAM:

```
import RPi.GPIO as GPIO
import time
GPIO.setmode(GPIO.BOARD)
GPIO.setup(7,GPIO.OUT)
GPIO.setup(11,GPIO.OUT)
GPIO.setup(13,GPIO.OUT)
GPIO.setup(15,GPIO.IN,pull_up_down=GPIO.UP)
def turn_on(pin,seconds):
    GPIO.output(pin,GPIO.HIGH)
    time.sleep(seconds)
def turn_off(pin,seconds):
    GPIO.output(pin,GPIO.LOW)
    time.sleep(seconds)
try:
    while True:
        button_state=GPIO.input(15)
        if button_state==True:
            turn_on(13,2)
            turn_off(13,.1)
            turn_on(7,4)
            turn_off(7,.1)
            turn_on(11,1)
            turn_off(11,.1)
        else:
            if button_state==False:
                GPIO.output(7,GPIO.LOW)
                GPIO.output(11,GPIO.LOW)
                GPIO.output(13,GPIO.LOW)
                time.sleep(.1)
except KeyboardInterrupt:
    GPIO.cleanup()
    print("TRAFFIC LIGHT SEQUENCE DONE")
```