Assignment -3
Python Programming

Assignment Date	30 September 2022
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Maximum Marks	2 Marks

Question:

To Write a Python code for Blinking LED and Traffic Lights For Raspberry pi .

program:

//code for blinking LED

```
importRPi.GPIO as GPIO
import time
LED_PIN = 17
GPIO.setmode(GPIO.BCM)
GPIO.setup(LED_PIN, GPIO.OUT)
while True:
   GPIO.output(LED_PIN, GPIO.HIGH)
   time.sleep(1)
   GPIO.output(LED_PIN, GPIO.LOW)
   time.sleep(1)
GPIO.cleanup()

importRPi.GPIO as GPIO # RPi.GPIO can be referred as GPIO from now
import time

ledPin = 22

def setup():
    GPIO.setmode(GPIO.BOARD)
    GPIO.setup(ledPin, GPIO.OUT)
    GPIO.output(ledPin, GPIO.LOW)

def loop():
    while True:
        print 'LED on'
```

```
        GPIO.output(ledPin, GPIO.HIGH)
        time.sleep(1.0)
        print 'LED off'
        GPIO.output(ledPin, GPIO.LOW)
        time.sleep(1.0) # wait 1 sec
    defendprogram():

    GPIO.output(ledPin, GPIO.LOW)
    GPIO.cleanup()
if __name__ == '__main__': # Program starts from here
    setup()
    try:
        loop()
    exceptKeyboardInterrupt:
        endprogram()
```

//code for traffic light system

```
fromgpiozero import Button, TrafficLights, Buzzer
from time import sleep

buzzer = Buzzer(15)
button = Button(21)
lights = TrafficLights(25, 8, 7)

while True:
        button.wait_for_press()
        buzzer.on()
        light.green.on()
        sleep(1)
        lights.amber.on()
        sleep(1)
        lights.red.on()
        sleep(1)
        lights.off()
        buzzer.off()
```