

**Assignment -3**  
Python Programming

Assignment Date	17th october 2022
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Maximum Marks	2 Marks

**Question-1:**

Write python code for blinking LED and Traffic lights for Raspberry pi.

**Solution:**

```
import RPi.GPIO as GPIO
import time
GPIO.setmode(GPIO.BCM)
GPIO.setwarnings(False)
GPIO.setup(18,GPIO.OUT)
print "LED on"
GPIO.output(18,GPIO.HIGH)
time.sleep(1)
print "LED off"
GPIO.output(18,GPIO.LOW)
PYTHON CODE FOR TRAFFIC LIGHT(Raspberry pi)
import RPi.GPIO as GPIO
import time
try:
    def lightTraffic(led1, led2, led3, delay.):
        GPIO.output(led1, 1)
        time.sleep(delay)
        GPIO.output(led1, 0)
        GPIO.output(led2, 1)
        time.sleep(delay)
        GPIO.output(led2, 0)
        GPIO.output(led3, 1)
        time.sleep(delay)
        GPIO.output(led3, 0)
    GPIO.setmode(GPIO.BCM)
    button = 19
    GPIO.setup(button, GPIO.IN, pull_up_down=GPIO.PUD_UP)
    ledGreen = 16
    ledYellow = 12
    ledRed = 23
    GPIO.setup(ledGreen, GPIO.OUT)
    GPIO.setup(ledYellow, GPIO.OUT)
    GPIO.setup(ledRed, GPIO.OUT)
```

```
.while True:
    .input_state = GPIO.input(button)
    .if input_state == False:
        .print('Button Pressed')
        .lightTraffic(ledGreen, ledYellow, ledRed, 1)
    .else:
        .GPIO.output(ledGreen, 0)
        .GPIO.output(ledYellow, 0)
        .GPIO.output(ledRed, 0)
    .except KeyboardInterrupt:
        .print "You've exited the program"
    .finally:
        .GPIO.cleanup()
```

