

ASSIGNMENT -3

IOT BASED SMART CROP PROTECTON SYSTEM

Student Name : S.Thanya

Student Roll Number: 960219106143

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

1 .python code for blinking LED for Raspberry pi

```
import RPi.GPIO as GPIO
import time
```

```
#assign numbering for the GPIO using BCM
```

```
GPIO.setmode(GPIO.BCM)
```

```
#assingn number for the GPIO using Board
```

```
#GPIO.setmode(GPIO.BOARD)
```

```
cnt = 0
```

```
MAIL_CHECK_FREQ = 1 # change LED status every 1 seconds RED_LED
```

```
= 4
```

```
GPIO.setup(RED_LED,GPIO.OUT)
```

```
while True:
```

```
if cnt 0:
```

```
GPIO.output(RED_LED,False)
```

```
cnt = 1 else:
```

```
GPIO.output(RED_LED,True)
```

```
cnt = 0
```

```
time.sleep(MAIL_CHECK_FREQ)
```

```
GPIO.cleanup()
```

2.Python code for Traffic lights for Raspberry pi.

```
from gpiozero 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()
```