

ASSIGNMENT – 3

PYTHON PROGRAMMING

Question:

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

Blinking Led:

```
Import RPi.GPIO as GPIO

from time import sleep

GPIO.setwarnings(False)

GPIO.setmode(GPIO.BOARD)

GPIO.setup(7, GPIO.OUT, initial=GPIO.LOW)

while True:

    GPIO.output(7, GPIO.HIGH)

    print("LED on")

    sleep (1)

    GPIO.output(7, GPIO.LOW)

    print("LED off")

    sleep(1)
```

Traffic Light:

```
import RPi.GPIO as GPIO

import time

try:

    deflightTraffic (led1, led2, led3, delay):
```

```
GPIO.output(led1, 1)Print("GREEN") time.sleep(delay)
GPIO.output(led1, 0)
GPIO.output(led2, 1) Print("YELLOW")
time.sleep(delay)
GPIO.output(led2, 0) GPIO.output(led3, 1)
Print("RED") 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
led Yellow 12
ledRed-23
GPIO.setup(ledGreen, GPIO.OUT)
GPIO.setup(led Yellow, GPIO.OUT)
GPIO.setup(ledRed, GPIO.OUT) while true:
input_state= GPIO.input(button)
if input state=False:
print('Button Pressed') light Traffic(ledGreen, led Yellow, ledRed,1)
else:
GPIO.output(led Green, 0)
GPIO.output(ledYellow, 0) GPIO.output(ledRed, 0)
except KeyboardInterrupt:
print "You've exited the program"
finally:
GPIO.cleanup()
```