

ASSIGNMENT 3

PYTHON PROGRAMMING

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STUDENT NAME	MR.M.G.YUVAN SHANKAR RAJA
STUDENT ROLL NUMBER	410819106005
MAXIMUM MARKS	2MARKS

QUESTION 1

WRITE PYTHON CODE FOR BLINKING LED AND TRFFIC LIGHTS FOR RASPBERRY PI.

SOLUTION:

PROGRAM:

```
import RPi.GPIO as GPIO
import time
import signal
import sys

# Setup
GPIO.setmode(GPIO.BCM)
GPIO.setup(9, GPIO.OUT)
GPIO.setup(10, GPIO.OUT)
GPIO.setup(11, GPIO.OUT)

# Turn off lights when user ends demo
```

```
def alllightOff(signal, Frame):  
    GPIO.output(9, False)  
    GPIO.output(10, False)  
    GPIO.output(11, False)  
    GPIO.cleanup()  
    sys.exit(0)  
signal.signal(signal.SIGINT,alllightsOff)  
# Loop forever  
while True:  
    # Red  
    GPIO.output(9, True)  
    time.sleep(3)  
    # Red and amber  
    GPIO.output(10, True)  
    time.sleep(1)  
    # Green  
    GPIO.output(9, False)  
    GPIO.output(10, False)  
    GPIO.output(11, True)  
    time.sleep(5)
```

Amber

GPIO.output(10, False)

GPIO.output(11, True)

time.sleep(2)

Amber off (red comes on top of loop)