

Assignment III
Python Programming

Assignment Date	06-10-2022
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Maximum Marks	2 Marks

Question 1:

Write python code for blinking LED and Traffic lights for Raspberry pi. Only python code is enough, no need to execute in raspberry pi.

Solution:

```
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 all lights when user ends demo
def allLightsOff(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(11,False)
    GPIO.output(10,True)
    time.sleep(2)
    #Amber off (red comes on at top of loop)
    GPIO.output(10,False)
```