

Assignment -3
Python Programming

Assignment Date	7 October 2022
Student Name	Ms. A.Vithya Bharathi
Student Roll Number	960219104116
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. Note: you are allowed to use web search and complete the assignment.

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)
```