

**Assignment -3**  
Python Programming

Assignment Date	7 October 2022
Student Name	Mr.Sudhan R
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Maximum Marks	2 Marks

**Question-1:**

Write a Python code for Blinking LED and Traffic Light for Raspberry Pi

**Solution:**

## Blinking Of an LED For Raspberry Pi

```
import time
import RPi.GPIO as GPIO      ## Import GPIO library
GPIO.setmode(GPIO.BOARD)    ## Use board pin numbering
GPIO.setup(11, GPIO.OUT)    ## Setup GPIO Pin 11 to OUT
while True:
    GPIO.output(11,True)    ## Turn on Led
    time.sleep(1)          ## Wait for one second
    GPIO.output(11,False)  ## Turn off Led
    time.sleep(1)          ## Wait for one second
```

## Traffic Light for Raspberry Pi

```
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)
# 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)
signal.signal(signal.SIGINT, allLightsOff)
```