

Assignment -3
Python Programming

Assignment Date	05 October 2022
Student Name	Mr. M. Jeyakumar
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Maximum Marks	2 Marks

Question-1:

Write python code for blinking LED for Raspberry pi.

Solution

```
: import RPi.GPIO as GPIO
from time import sleep
GPIO.setmode(GPIO.BOARD)
GPIO.setup(8, GPIO.OUT, initial=GPIO.LOW)

while True:
    GPIO.output(8, GPIO.HIGH)
    sleep(1)
    GPIO.output(8, GPIO.LOW)
    sleep(1)
```

Question-2:

Write python code for Traffic lights for Raspberry pi.

Solution:

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

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

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)
```

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)
```