Assignment -3
Python Programming

Assignment Date	6 October 2022
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Maximum Marks	2 Marks

Question-1:

Write a python code for blinking LED in Raspberry pi.

Solution:

1.

```python
import RPi.GPIO as GPIO

from time import sleep

GPIO.setwarnings(False)

GPIO.setmode(GPIO.BOARD)

GPIO.setup (8, GPIO.OUT, initial = GPIO.LOW)

while True:

    GPIO.output(8, GPIO.HIGH)

    sleep(2)

    GPIO.output(8, GPIO.LOW)

    sleep(2)
```

2.

```python
from gpiozero import LED
from time import sleep
led=LED(16)
while True:
    led.on()
    sleep(1)
    led.off()
    sleep(1)
```

Question-2:

Write a python code for Traffic lights in Raspberry pi.

```python
import RPI.GPIO as gpio

from time import sleep

RED_PIN =25

YELLOW_PIN =8

GREEN_PIN =7


gpio.setwarnings(FALSE)

gpio.setmode(gpio.BOARD)

gpio.setup(BLINK_PIN, gpio.OUT, initial=gpio.LOW)


def red_light(): #function for red light

    gpio.output(RED_PIN, gpio.HIGH)

    gpio.output(YELLOW_PIN, gpio.LOW)

    gpio.output(GREEN_PIN, gpio.LOW)


def yellow_light():  #function for yellow light

    gpio.output(RED_PIN, gpio.LOW)

    gpio.output(YELLOW_PIN, gpio.HIGH)

    gpio.output(GREEN_PIN, gpio.LOW)


def green_light():  #function for green light

    gpio.output(RED_PIN, gpio.LOW)

    gpio.output(YELLOW_PIN, gpio.LOW)

    gpio.output(GREEN_PIN, gpio.HIGH)



while True:

    red_light() # red light for 10 seconds

    sleep(10)
```

```
yellow_light()  # yellow light for 6 seconds
sleep(6)


green_light()
sleep(10)    # allow traffic for 10 seconds
```