

Assignment -3

Python Programming

Assignment Date	04 October 2022
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Maximum Marks	2 Marks

Question:

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

1. Raspberry Pi Program to Blink A LED.

```
import RPi.GPIO as GPIO # Import Raspberry Pi GPIO library

from time import sleep # Import the sleep function from the time module

GPIO.setwarnings(False) # Ignore warning for now

GPIO.setmode(GPIO.BOARD) # Use physical pin numbering

GPIO.setup(8, GPIO.OUT, initial=GPIO.LOW) # Set pin 8 to be an output
pin and set initial value to low (off)

while True: # Run forever

    GPIO.output(8, GPIO.HIGH) # Turn on

    sleep(1) # Sleep for 1 second

    GPIO.output(8, GPIO.LOW) # Turn off

    sleep(1) # Sleep for 1 second
```

2. Raspberry Pi Program for Traffic Light.

```
from gpiozero import Buzzer from gpiozero import Button
```

```
from gpiozero import LED
```

```
from time import sleep
```

```
button = Button (21) buzzer = Buzzer (15)
```

```
redled = LED(25)
```

```
yellowled = LED(8) greenled = LED(7)
```

```
while True:
```

```
    if button.is_pressed:
```

```
        redled.on()
```

```
        buzzer.on()
```

```
        sleep(2)
```

```
        redled.off()
```

```
        buzzer.off()
```

```
        yellowled.on()
```

```
        sleep(2)
```

```
        yellowled.off()
```

```
        greenled.on()
```

```
        sleep(2)
```

```
        greenled.off()
```

```
        break
```