

### Assignment -3

#### Python Programming

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Maximum Marks	2 Marks

#### QUESTION-1:

Write a python code for led blinking in raspberry pi

#### SOLUTION:

```
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
```

```
File Edit Format Run Options Window Help
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
```

## QUESTION-2:

Write a python code for traffic light in raspberry pi

## SOLUTION:

```
from gpiozero import Button, TrafficLights, Buzzer
```

```
from time import sleep
```

```
buzzer = Buzzer(20)
```

```
button = Button(31)
```

```
lights =
```

```
TrafficLights(35,16,14)
```

```
while True:
```

```
    button.wait_for_press()
```

```
    buzzer.on()
```

```
    light.green.on()
```

```
    sleep(1)
```

```
    lights.amber.on()
```

```
    sleep(1) lights.red.on()
```

```
    sleep(1) lights.off()
```

```
    buzzer.off()
```

```
File Edit Format Run Options Window Help
from gpiozero import Button, TrafficLights, Buzzer
from time import sleep

buzzer = Buzzer(20)
button = Button(31)
lights = TrafficLights(35,16,14)

while True:
    button.wait_for_press()
    buzzer.on()
    light.green.on()
    sleep(1)
    lights.amber.on()
    sleep(1)
    lights.red.on()
    sleep(1)
    lights.off()
    buzzer.off()
```