

## ASSINGMENT 3

### PYTHON PROGRAMMING

Assignment Date	1 October 2022
Project Name	<b>Real-Time River Water Quality Monitoring and Control System</b>
Team ID	PNT2022TMID23156
Maximum Marks	2 Marks

#### Question-1:

Write a python code blinking a LED for Raspberry pi

#### Solution:

##### Code:

```
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 Traffic lights for Raspberry pi

**Solution:**

Code: from gpiozero import Button, TrafficLights, Buzzer from time import

sleep buzzer =

Buzzer(15) button =

Button(21)

lights = TrafficLights(25, 8, 7)

while True:

    button.wait\_for\_

    p        ress()

    buzzer.on()

    light.green.o  n()

    sleep(1)

    lights.amber. on()

    sleep(1)

    lights.red.on(  )

    sleep(1)

    lights.off()

    buzzer.off()