**ASSINGMENT 3**

**PYTHON PROGRAMMING**

| Assignment Date | 1 October 2022 |
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| Project Name | **Real-Time River Water Quality Monitoring and Control System** |
| Team ID | PNT2022TMID23214 |
| Maximum Marks | 2 Marks |

**Question-1:**

Write a python code blinking a LED for Raspberry pi

**Solution:**

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*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:**

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*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()