**Assignment -3**

Python Programming

|  |  |
| --- | --- |
| Assignment Date | 02 October 2022 |
| Student Name | Rithikvarshan S |
| Student Roll Number | 720719106098 |
| Maximum Marks | 2 Marks |

**Question-1:**

Write python code for blinking LED and Traffic lights for Raspberry pi

**Solution:**

**Blinking 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)

**whileTrue**: # 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

**Traffic lights**

**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\_press()

buzzer.on()

light.green.on()

sleep(1)

lights.amber.on()

sleep(1)

lights.red.on()

sleep(1)

lights.off()

buzzer.off()