**Assignment -3**

Python Programming for Raspberry Pi

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| Assignment Date | 1 September 2022 |
| Student Name | ARUN PRABHAKAR G |
| Maximum Marks | 2 Marks |

**Question-1:**

Write python code for Blinking LED for Raspberry Pi.

# Blinking LED - Python Code for Raspberry Pi

**import RPi.GPIO as GPIO** # Importing Raspberry Pi GPIO library **from time import sleep** # Importing the sleep function from the time module

**GPIO.setwarnings(False)** # Ignoring the warning

**GPIO.setmode(GPIO.BOARD)** # Using physical pin numbering

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

**while True:** # Run forever

**GPIO.output(8, GPIO.HIGH)** # Turn on the LED  **sleep(1)** # Sleep for 1 second

**GPIO.output(8, GPIO.LOW)** # Turn off the LED  **sleep(1)** # Sleep for 1 second

**Question-2:**

Write python code for Traffic Lights Simulation for Raspberry Pi.

# Traffic Light Simulation - Python Code for Raspberry Pi

**from gpiozero import LED** # Importing LED object from gpiozero module **from time import sleep** # Importing sleep function from time module

**red = LED(17)** # Setting pin 17 for red led **amber = LED(22)** # Setting pin 22 for amber led **green = LED(27)** # Setting pin 27 for green led

**while True:**

**red.on()** # Turning on Red Signal  **sleep(90)** # Red stays for 90 Seconds  **red.off()** # Turning off Red Signal  **amber.on()** # Turning on Amber Signal  **sleep(5)** # Amber stays for 5 Seconds  **amber.off()** # Turning off Amber Signal  **green.on()** # Turning on Green Signal  **sleep(30)** # Green stays for 30 Seconds  **green.off()** # Turning off Green Signal