**Assignment -3**

Python Programming

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| **Assignment Date** | **05 October 2022** |
| **Student Name** | **AARTHI P** |
| **Student Roll Number** | **811019106001** |
| **Maximum Marks** | **2 Marks** |

**Question-1 :**

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

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| **Solution :** |

**# Blinking LED**

**import RPi.GPIO as GPIO**

**from time import sleep**

**GPIO.setwarnings(False)**

**GPIO.setmode(GPIO.BOARD)**

**GPIO.setup(8, GPIO.OUT, initial=GPIO.LOW)**

**while True:**

**GPIO.output(8, GPIO.HIGH)**

**sleep(1)**

**GPIO.output(8, GPIO.LOW)**

**sleep(1)**

**# Traffic light Simulation**

**import RPi.GPIO as GPIO**

**import time**

**import signal**

**import sys**

**GPIO.setmode(GPIO.BCM)**

**GPIO.setup(9, GPIO.OUT)**

**GPIO.setup(10, GPIO.OUT)**

**GPIO.setup(11, GPIO.OUT)**

**while True:**

**# Red**

**GPIO.output(9, True)**

**time.sleep(3)**

**# Red and amber**

**GPIO.output(10, True)**

**time.sleep(1)**

**# Green**

**GPIO.output(9, False)**

**GPIO.output(10, False)**

**GPIO.output(11, True)**

**time.sleep(5)**

**# Amber**

**GPIO.output(11, False)**

**GPIO.output(10, True)**

**time.sleep(2)**

**# Amber off (red comes on at top of loop)**

**GPIO.output(10, False)**