# Assignment -3

Python Programming

|  |  |
| --- | --- |
| Assignment Date | 05 October 2022 |
| Student Name | Mr. V. Maniyarasu |
| Student Roll Number | 713319IT024 |
| Maximum Marks | 2 Marks |

# Question-1:

Write python code for blinking LED for Raspberry pi.

# Solution:

**import RPi.GPIO as GPIO from** time **import** sleep 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**)

# Question-2:

Write python code for Traffic lights for Raspberry pi.

# Solution:

**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)

def allLightsOff(signal, frame): GPIO.output(**9**, False) GPIO.output(**10**, False) GPIO.output(**11**, False) GPIO.cleanup()

sys.exit(0) signal.signal(signal.SIGINT, allLightsOff)

# 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)