#### Assignment -3

## **Python Programming**

| Assignment Date     | 07 October 2022 |
|---------------------|-----------------|
| Student Name        | Ms. KIRUBA M    |
| Student Roll Number | 621319106042    |
| Maximum Marks       | 2 Marks         |

#### Question:

Write a python code for blinking LED and Traffic lights for Raspberry Pi.

### **PROGRAM:**

sys.exit(0)

```
import RPi.GPIO as GPIO
import time
import os
import signal
import sys
if('TRAFFIC_LIGHT_COUNTRY'inos.environ)and(os.environ['TRAFFIC_LIGHT_CO
UNTRY'] in ['UK', 'USA']):
      pattern = os.environ['TRAFFIC LIGHT COUNTRY'].lower()
else:
      print('TRAFFIC LIGHT COUNTRY should be set to UK or USA')
      sys.exit(1)
# Setup
GPIO.setmode(GPIO.BCM)
GPIO.setup(9, GPIO.OUT)
GPIO.setup(10, GPIO.OUT)
GPIO.setup(11, GPIO.OUT)
# Turn off all lights when user ends demo
def allLightsOff(signal, frame):
      GPIO.output(9, False)
      GPIO.output(10, False)
      GPIO.output(11, False)
      GPIO.cleanup()
```

# signal.signal(signal.SIGINT, allLightsOff)

```
# Loop forever
while True:
      # Red
      GPIO.output(9, True)
      time.sleep(3)
      # Red and amber for UK only
      if (pattern == 'uk'):
            GPIO.output(10, True)
      time.sleep(1)
      # Green
      GPIO.output(9, False)
      GPIO.output(10, False)
      GPIO.output(11, True)
      time.sleep(5)
      # Amber, longer in US than UK
      GPIO.output(11, False)
      GPIO.output(10, True)
      if (pattern == 'uk'):
            time.sleep(2)
      else:
            time.sleep(3)
      # Amber off (red comes on at top of loop)
      GPIO.output(10, False)
```