ASSIGNMENT 3

PROBLEM STATEMENT:

Iot-Based Smart Crop Protection System for Agriculture

DOMAIN:

Internet of Things

Assignment 3:

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

By,

S. Yazhini – 913119106121

J. M. Kanakadurga – 913119106046

R. Keerthana – 913119106049

S. S. Sai Swaroopa – 913119106088

Python Code for Blinking LED :

```python
import RPi.GPIO as GPIO

from time import

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)
```

Python Code for Traffic Lights:

```python
import RPi.GPIO as GPIO

import time

try:
 def lightTraffic(led1, led2, led3, delay ):
  GPIO.output(led1, 1)
  time.sleep(delay)
  GPIO.output(led1, 0)
  GPIO.output(led2, 1)
  time.sleep(delay)
  GPIO.output(led2, 0)
  GPIO.output(led3, 1)
```

```python
        time.sleep(delay)
     GPIO.output(led3, 0)
    GPIO.setmode(GPIO.BCM)
    button = 19
    GPIO.setup(button, GPIO.IN, pull_up_down=GPIO.PUD_UP)
    ledGreen = 16
    ledYellow = 12
    ledRed = 23
    GPIO.setup(ledGreen, GPIO.OUT)
    GPIO.setup(ledYellow, GPIO.OUT)
    GPIO.setup(ledRed, GPIO.OUT)
    while True:
      input_state = GPIO.input(button)
      if input_state == False:
        print('Button Pressed')
        lightTraffic(ledGreen, ledYellow, ledRed, 1)
      else:
        GPIO.output(ledGreen, 0)
        GPIO.output(ledYellow, 0)
        GPIO.output(ledRed, 0)
except KeyboardInterrupt:
  print "You have exited the Program"
finally:
  GPIO.cleanup()
```