PYTHON CODE FOR BLINKING LED:

```
import RPi.GPIO as GPIO


ledPin = 22


def setup():
    GPIO.setmode(GPIO.BOARD)
    GPIO.setup(ledPin, GPIO.OUT)
    GPIO.output(ledPin, GPIO.LOW)


def loop():
    while True:
        print 'LED on'
        GPIO.output(ledPin, GPIO.HIGH)
        time.sleep(1.0)
        print 'LED off'
        GPIO.output(ledPin, GPIO.LOW)
        time.sleep(1.0)
def endprogram():


    GPIO.output(ledPin, GPIO.LOW)
```

```
    GPIO.cleanup()


if __name__ == '__main__':
    setup()
    try:
        loop()
    except KeyboardInterrupt:
        endprogram()
```

PYTHON CODE FOR TRAFFIC LIGHTS :

```
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)
  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've exited the program"
finally:
  GPIO.cleanup()
```