BLINKING LED AND TRAFFIC LIGHTS FOR RASPBERRY PI:

PROGRAM FOR LED:

```
import RPI.GPIO as GPIO                    # Import Raspberry Pi GPIO library
from time import sleep                     #Import sleep function from the time module
GPIO.setwarnings(False)                    #Ignore warning for now
GPIO.setmode(GPIO.BOARD)                   #Use physical pin numbering
GPIO.seiup(8,GPIO.OUT,initial—GPIO.LOW)
#Set pin S to be an output pin and set initial value to low(off
while True:                                #Run forever
        GPIO.output(S,GPIO.HIGH)           #Turn on
        .sleep(l )                         #Sleep for I second
        GPIO.output(S,GPIO.LOW)            #TurnoS
        sleep(l )                          #S1eep tor 1 second
```

For Traffic Lights:

```
import RPI.GPIO as GPIO
import time
import signal
import sys
#Setup
GPIO.setmode(GPIO.BCM)
GPIO.setup(9,GPIO.OUT)
GPIO.setup(l0,GPIO.OUT)
GPIO.setup(I 1,GPIO.OUT)
```

```
#Turn off all lights when user ends demo
def allLightsOff(signal,framer):
    GPIO.output(9,False)
    GPIO.output(10,False)
    GPIO.output(1 1,Fa1se)
    GPIO.cleanup()
    sys.exit(0)
signal.signal(signal.SIGINT,allLightsOf
#Loop forever
while True:
```

```
#Turn off all lights when user ends demo
def allLightsOff(signal,framer):
    GPIO.output(9,False)
    GPIO.output(l0,False)
    GPIO.output(1 1,False)
    GPIO.cleanup()
    sys.exit(0)
signal.signal(signal.SIGINT,allI.ightsOff)
#Loop forever
while True:
    GPIO.output(9,True)  #Red
    Time.sleep(3)
    #Red and amber
    GPIO.output(l0,True)
    Time.sleep(1)
    #Green
    GPIO.output(9,False)
    GPIO.output(l0,False)
    GPIO.output(1 1,True)
    Time.sleep(5)      #Amber
    GPIO.output(1 1,False)
    GPIO.output(l0,True)
    Time.sleep(2)
    #Amber off(red comes on at top of loop)
    GPIO output(l0,False)
```