

## **CODE:**

### **1)PYTHON CODE FOR BLINKING LED**

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

### **2) PYTHON CODE FOR TRAFFIC LIGHT**

```
GPIO.output(8, GPIO.LOW) # Turn off
Sleep (1) # Sleep for 1 second
import RPi.GPIO as GPIO
import time
import signal
import sys
# 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()
```

```
sys.exit(0)

signal.signal(signal.SIGINT, allLightsOff)

# Loop forever
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)
```