

ASSIGNMENT 3

1. Write python code for blinking LED and Traffic lights for Raspberry pi.

Solution:

```
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)
```

