ASSIGNMENT 3

Question-1:

Write python code for blinking LED for Raspberry pi.

ANSWER :

```
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
GPIO.output(8, GPIO.LOW) # Turn off sleep(1) # Sleep for 1 second
```

Question-2:

Write python code for Traffic lights for Raspberry pi

Solution:

```
import RPi.GPIO as GPIO import time
import signal
```

ANSWER :

```
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) 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)
```