

Assignment -3

Python

Programming

MAHENDRA ENGINEERING COLLEGE FOR WOMEN

NAME: Shrimathi.P

CLASS:4th YEAR ECE

SUBJECT: IBM

REGISTER NUMBER : 611419106059

Question-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.B
CM) 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)
```