

ASSIGNMENT-3

MAHABARATHI ENGINEERING COLLEGE

NAME: M.SIVA

CLASS: IV-YEAR ECE

SUBJECT: IBM

QUESTION:

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 light 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)
```

