IOT ASSIGNMENT-3

TOPIC: Write Python code for blinking LED and Traffic lights for Raspberry pi.

CODE FOR LED BLINKING

```
import RPi.GPIO as GPIO
import time

GPIO.setwarnings(False)

GPIO.setmode(GPIO.BCM)

GPIO.setup(23, GPIO.OUT)

GPIO.setup(24, GPIO.IN, GPIO.PUD_UP)

try:

while True:

if GPIO.input(24) == 0:

GPIO.output(23, GPIO.HIGH)

time.sleep(0.5)
```

```
GPIO.output(23, GPIO.LOW)

time.sleep(0.5)

else:

GPIO.output(23, GPIO.LOW)

except KeyboardInterrupt:

GPIO.cleanup()[/code]
```

CODE FOR TRAFFIC LIGHTS BLINKING

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


# Setup
GPIO.setmode(GPIO.BCM)
GPIO.setup(11, GPIO.OUT)
GPIO.setup(12, GPIO.OUT)
GPIO.setup(13, GPIO.OUT)
# Turn off all lights when user ends demo
def allLightsOff(signal, frame):
    GPIO.output(11, False)
    GPIO.output(12, False)
    GPIO.output(13, False)
```

```
    GPIO.cleanup()
    sys.exit(0)
signal.signal(signal.SIGINT, allLightsOff)


while True:
    # Red
    GPIO.output(11, True)
    time.sleep(3)
    # Red and amber
    GPIO.output(12, True)
    time.sleep(1)
    # Green
    GPIO.output(11, False)
    GPIO.output(12, False)
    GPIO.output(13, True)
    time.sleep(5)
    # Amber
    GPIO.output(12, False)
    GPIO.output(11, True)
    time.sleep(2)
    # Amber off (red comes on at top of loop)
    GPIO.output(11, False)
```