

Assignment -3
Python Programming

Assignment Date	02 October 2022
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Maximum Marks	2 Marks

Write a python code for blinking LED and Traffic Lights for Raspberry Pi.
(i) Python Code for Blinking LED:
#import RPi.GPIO as GPIO #Import Raspberry Pi GPIO library
#from gpiozero import LED
from time import sleep #Import the sleep function from the time modulo
#led = LED(17)
while True:
#led.on()
print("LED turned ON")
sleep(1)
#led.off()
print("LED turned OFF")
sleep(1)

(ii) Python Code for Traffic Lights:

```
import RPi.GPIO as
GPIOimport 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
def allLightOff(signal,
    frame):
    GPIO.output(9,False)
    GPIO.output(10,False)

    GPIO.output(11,F
    else)
    GPIO.cleanup()
    sys.exit(0)
signal.signal(signal.SIGINT,
allLightsOff)#Forever Loop
while True:
    #Red
    GPIO.output(9,
    True)
    time.sleep(3)
    GPIO.output(10,
    True)
    time.sleep(1)
    #Green
    GPIO.output(9,Fa
    lse)
    GPIO.output(10,F
    else)
    GPIO.output(11,T
    rue)time.sleep(5)

```

```
#Amber
```

```
GPIO.output(11,F  
alse)
```

```
GPIO.output(10,T  
rue)time.sleep(2)
```

```
#Amber off
```

```
GPIO.output(10,F  
alse)
```