

Assignment -3

Assignment Date	07 October 2022
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Maximum Marks	

Question-1:

Python Code for Blinking led & Traffic lights

Write python code for blinking LED and Traffic lights for Raspberry pi.;

CODE:

#Blinking LED

```
import time
import RPi.GPIO as GPIO      ## Import GPIO library
GPIO.setmode(GPIO.BOARD)    ## Use board pin numbering
GPIO.setup(11, GPIO.OUT)    ## Setup GPIO Pin 11 to OUT
while True:
    GPIO.output(11,True)    ## Turn on Led
    time.sleep(1)          ## Wait for one second
    GPIO.output(11,False)   ## Turn off Led
    time.sleep(1)
```

#TRAFFIC LIGHT

```
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 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)
```