

**ASSIGNMENT 3**  
**PYTHON PROGRAMMING - 2**

Assignment Date	3 October 2022
Student Name	SHARMILA B
Student Roll Number	411919104011

**Question – 1**

**Write Python code for Blinking LED and Traffic Lights for Raspberry Pi. Only the Python code is enough and need not to execute it on the board.**

**Solution**

**Blinking of an LED**

```
# Using in-built functions
from gpiozero import Button, LED, Buzzer
#connecting led button & buzzer to gpio pins
led = LED(18)
button = Button(16)
buzzer = Buzzer(7)
#blinking led based on button press
while True:
    button.wait_for_press()
    led.blink(1,1)
    buzzer.on()
    button.wait_for_release()
    led.off()
    buzzer.off()
```

```
2
3  # Blinking of an LED
4  # Using in-built functions
5  from gpiozero import Button, LED, Buzzer
6  #connecting led button & buzzer to gpio pins
7  led = LED(18)
8  button = Button(16)
9  buzzer = Buzzer(7)
10
11 #blinking led based on button press
12 while True:
13     button.wait_for_press()
14     led.blink(1,1)
15     buzzer.on()
16     button.wait_for_release()
17     led.off()
18     buzzer.off()
```

## Traffic Lights

```
# Creating Traffic light using RaspberryPi
from gpiozero import TrafficLights, Button
from time import sleep
signal = TrafficLights(22,8,7)
button = Button(16)
while True:
    button.wait_for_press()
    signal.red.on()
    sleep(1)
    signal.amber.on()
    sleep(1)
    signal.green.on()
    sleep(1)
    signal.off()
```

```
2
3  # Creating Traffic light using RaspberryPi
4  from gpiozero import TrafficLights, Button
5  from time import sleep
6  signal = TrafficLights(22,8,7)
7  button = Button(16)
8  while True:
9      button.wait_for_press()
10     signal.red.on()
11     sleep(1)
12     signal.amber.on()
13     sleep(1)
14     signal.green.on()
15     sleep(1)
16     signal.off()
```