

Assignment -3

Python Programming

Assignment Date	5 October 2022
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Maximum Marks	2 Marks

Question-1:

Write python code for Traffic lights by using Raspberry pi.

PROGRAM:

```
from gpiozero import Button,TrafficLights, Buzzer
from time import sleep
buzzer = Buzzer(15)
button = Button(21)
lights = TrafficLights(25, 8, 7)
while True:
    button.wait_for_press()
    buzzer.on()
    light.green.on()
    sleep(1)
    lights.amber.on()
    sleep(1)
    lights.red.on()
    sleep(1)
    lights.off()
    buzzer.off()
```

Question-2:

Write python code for Blinking LED for Raspberry pi.

PROGRAM:

```
Import RPi.GPIO as GPIO
```

```
import time
```

```
#assign numbering for the GPIO using BCM
```

```
GPIO.setmode(GPIO.BCM)
```

```
#assign number for the GPIO using Board
```

```
#GPIO.setmode(GPIO.BOARD)
```

```
cnt = 0
```

```
MAIL_CHECK_FREQ = 1 # change LED status every 1 seconds
```

```
RED_LED = 4
```

```
GPIO.setup(RED_LED, GPIO.OUT)
```

```
while True:
```

```
if cnt == 0 :
```

```
GPIO.output(RED_LED, False)
```

```
cnt = 1
```

```
else:
```

```
GPIO.output(RED_LED, True)
```

```
cnt = 0
```

```
time.sleep(MAIL_CHECK_FREQ)
```

```
GPIO.cleanup()
```

