

ASSINGMENT 3

PYTHON PROGRAMMING

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| Assignment Date | 1 October 2022 |
| Student Name | SHERJEEL AMIN |
| Student Roll Number | CITC1904111 |
| Maximum Marks | 2 Marks |

Question-1:

Write a python code blinking a LED for Raspberry pi

Solution:

Code:

```
import RPi.GPIO as GPIO # Import Raspberry Pi GPIO library
from time import sleep # Import the sleep function from the time
moduleGPIO.setwarnings(False) # Ignore warning for
now GPIO.setmode(GPIO.BOARD) # Use physical pin
numbering
GPIO.setup(8, GPIO.OUT, initial=GPIO.LOW) # Set pin 8 to be an
output pin andset initial value to low (off)
while True: # Run forever
    GPIO.output(8, GPIO.HIGH) #
    Turn onsleep(1) # Sleep for 1
    second GPIO.output(8,
    GPIO.LOW) # Turn offsleep(1) #
    Sleep for 1 second
```

Question-2:

Write a python code Traffic lights for Raspberry pi

Solution:Code:

```
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()
```