ASSIGNMENT -3

Assignment date	11 October 2022
Student name	S.Sabaresan
Student Roll Number	622419104036
Maximum Marks	2 Marks

QUESTION:

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

Solution:

PYTHON CODE FOR BLINKING LED

```
import RPi.GPIO as GPIO # Import Raspberry Pi GPIO library

from time import sleep # Import the sleep function from the time module


GPIO.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 and set initial value
to low (off)


while True: # Run forever

 GPIO.output(8, GPIO.HIGH) #

 Turn on sleep(1) # Sleep for 1

 second GPIO.output(8,

 GPIO.LOW) # Turn off sleep(1) #

 Sleep for 1 second
```

PYTHON CODE FOR TRAFFIC LIGHT

```
import RPi.GPIO as
GPIO import time
import
signal
import sys

# Setup
GPIO.setmode(GPIO.B
CM) 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)
```