**ASSIGNMENT-3**

| Date | 04-10-2022 |
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| Team ID | PNT2022TMID24400 |
| Project Name | PERSONAL ASSISTANCE FOR SENIORS WHO ARE SELF-RELIANT |
| Maximum Marks | 2 Marks |

**TOPIC:** Write python code for blinking LED and Traffic lights for Raspberry pi.

**CODE:**

**1) 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

**2) PYTHON CODE FOR TRAFFIC LIGHT**

GPIO.output(8, GPIO.LOW) # Turn off Sleep (1) # Sleep for 1 second

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)