**Assignment -3**

Python Programming for Raspberry pi

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| Student Name | MARIA JEEVITHA.T |
| Student Roll Number | 312419106079 |
| Team ID | PNT2022TMID28270 |
| Maximum Marks | 2 Marks |

**Question-1:**

Write python code for blinking LED and Traffic lights for Raspberry pi.Only python code is enough, no need to execute in raspberry pi.

Note: you are allowed to use web search and complete the assignment.

# SOLUTION :

**PYTHON CODE FOR BLINKING LED FOR RASPBERRY PI**

#blinking with gpiozero library From gpiozero import LED From time import sleep

Led = LED(23)

While True: Led.on()

Print(‘LED ON’)

Sleep(1) Led.off()

Print(‘LED OFF’)

Sleep(1)

**PYTHON CODE FOR TRAFFIC LIGHTS FOR RASPBERRY PI**

import RPi.GPIO as GPIO import time

GPIO.setmode( GPI0.BOARD) GPIO.setup(7, GPIO.OUT)# Green LED

GPIO.setup(11,GPIO.0UT)#Yellow LED GPIO.setup(13,GPI0.0UT)#Red LED

GPI0.setup(15, GPIO.IN, pull\_up\_down=GPIO.PUD UP) #Button

def turn on (pin,seconds):

def GPIO.output (pin, GPIO . HIGH) time.sleep(pin, seconds)

def trun of(pin, seconds) GPI0.output (pin, GPIO .LOW) time.sleep(seconds)

try:

while True:

Button State= GPI0.input(15) If button State= True:

turn on(13,2) turn off(13,.1) turn on (7,4)

turn off(7, .1) turn on(11,1) turn off(11,.1)

else:

if button state = False: GPIO.output(7,GPIO.LOW) GPIO.output(11,GPIO.LOW) GPIO.output(13,GPIO.LOW)

time.sleep(.1)

except Keyboard Interrupt: GPI0.cleanup()