**Practical 3**

**Aim:**

**Displaying Time over 4-Digit 7-Segment Display using Raspberry Pi**

**Additional Hardware requires:**

1. TM1637 4-digit seven segment Display board
2. Jumper wires

**Pins connection**

| TM1637 Pin | Name | Remarks | RPi Pin | RPi Function

|----------:|:-----|:------------|--------:|-------------------

| 1 | GND | Ground | 6 | GND

| 2 | VCC | +5V Power | 2 | 5V

| 3 | DIN | Data In | 38 | GPIO 20

| 4 | CLK | Clock | 40 | GPIO 21

**Libraries needed:**

tm1637.py is a driver library. Download and save it in same folder as your code.

**Write following code in Python 3 IDLE save it as ‘clock.py’**

*#!/usr/bin/python*

*import time*

*import datetime*

*import tm1637 as obj*

*Display = obj.TM1637(CLK=21, DIO=20, brightness=5.0)*

*Display.Clear()*

*while(True):*

*now = datetime.datetime.now()*

*hour = now.hour*

*minute = now.minute*

*second = now.second*

*Display.Clear()*

*val = [(int(hour / 10)), (hour % 10), (int(minute / 10)), (minute % 10) ]*

*Display.Show(val)*

*Display.ShowDoublepoint((second % 2))*

*time.sleep(0.25)*

**Output:**

