

071305T4ELC

ELECTRONICS ENGINEERING LEVEL 5

ENG/OS/ET/CR/04/5/A

Apply Electrical Instrumentation

March/April 2025



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

PRACTICAL ASSESSMENT

Time: 4 HOURS

1. You are required to perform the following tasks

TASK 1:

Mount the circuit as shown in figure 1 on the breadboard.

TASK 2:

Power the circuit and measure the voltages at the following test points.

- i. TP_1
- ii. TP_2
- iii. TP_4

TASK 3:

- i. Use an oscilloscope to display the waveform at test point TP_3
- ii. Draw the output waveform at TP_3

TASK 4:

Carry out the following tests and compile a report.

- i. Continuity test
- ii. Polarity test

2. You have been provided with the following resources for the practical tasks

- Oscilloscope
- Multimeter
- Breadboard
- 12 V dc power supply
- 555 Timer IC
- Ceramic capacitor: $0.01 \mu F$ and $0.1 \mu F$
- Resistors: $R_1 = 2 k\Omega$, $R_2 = 10 k\Omega$, $R_3 = 1 k\Omega$ and $R_4 = 1 k\Omega$

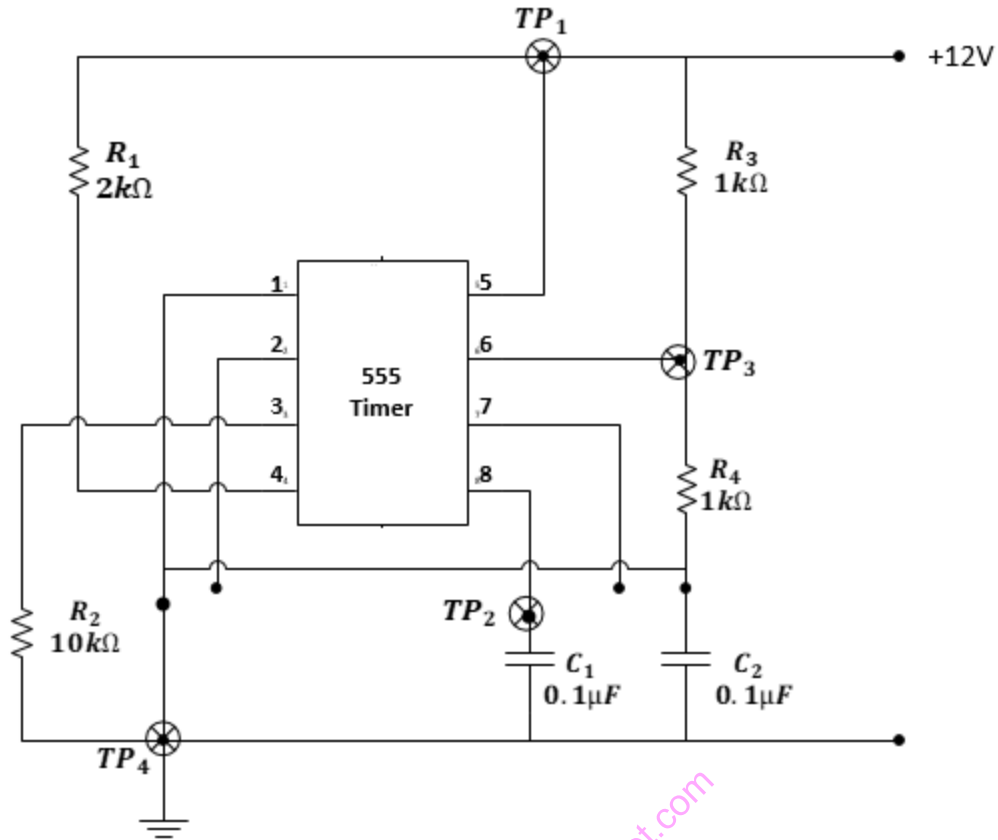


Figure 1

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