

071306T4ELC

ELECTRONICS ENGINEERING LEVEL 6

ENG/OS/ET/CR/02/6

Install Power Supply Systems

July/August 2025



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

PRACTICAL ASSESSMENT

Time: 3 HOURS

INSTRUCTIONS TO CANDIDATE:

1. Figure 1 shows a power supply. You are required to perform the following tasks:
 - TASK 1:** Install the power supply system by Mounting and soldering the components on the copper strip board as per the circuit shown in figure 1.
 - TASK 2:** Test the working of the circuit when the ammeter current reading is 0 mA and when it is adjusted to 5 mA.
 - TASK 3:** Observe the waveform of output voltage on the CRO and draw a trace of the same when the circuit is tested
 - TASK 4:** Write a brief test report and desolder the components.

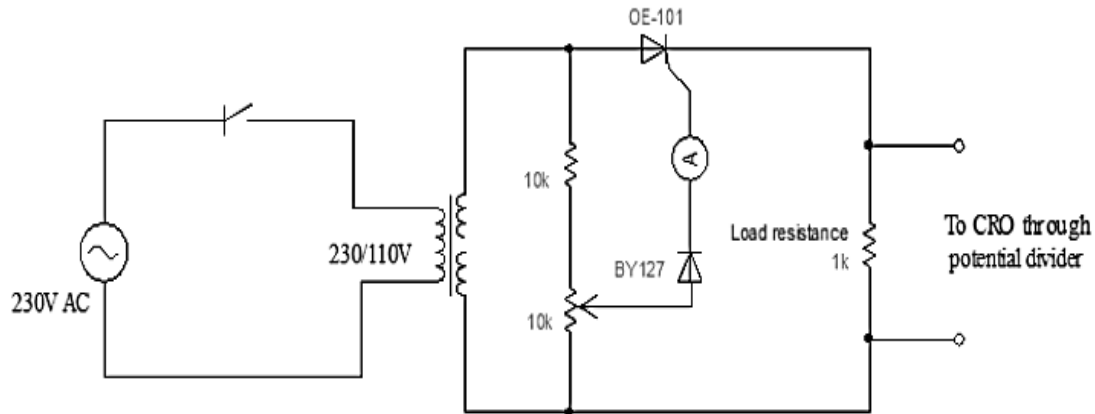


Fig 1: Power supply circuit

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

- i. 230/110V transformer
- ii. Fixed resistor $10\text{ k}\Omega$
- iii. Fixed resistor $1\text{ k}\Omega$
- iv. Variable resistor $10\text{ k}\Omega$
- v. Thyristor OE-101
- vi. Diode BY127
- vii. CRO
- viii. Ammeter 0 - 10 mA
- ix. Copper Strip board
- x. Solder wire
- xi. Soldering iron
- xii. Desoldering pump
- xiii. Jumper wires
- xiv. Plain paper
- xv. Toggle switch