TEVETA

Technical Education, Vocational and Entrepreneurship Training Authority

DIPLOMA IN SCIENCE LABORATORY TECHNOLOGY

LEVEL 6 YEAR 1 EXAMINATIONS

FINAL INTEGRATED SUMMATIVE EXAMINATIONS

SITTING: APRIL - MAY 2026

SUBJECT: FOUNDATION PHYSICS PRACTICAL

TIME: TWO (2) HOURS **TOTAL MARKS: 100**

PASS MARK: 50

INSTRUCTIONS TO CANDIDATE

1. Write your Examination Number and National Registration Card (NRC) Number on the marking guide provided.
2. This paper has one (1) task. Perform the task as per given procedure.
3. Diagrams may be used where necessary to clarify your answer.
4. Cellphones and programmable calculators are not allowed in the examination room.

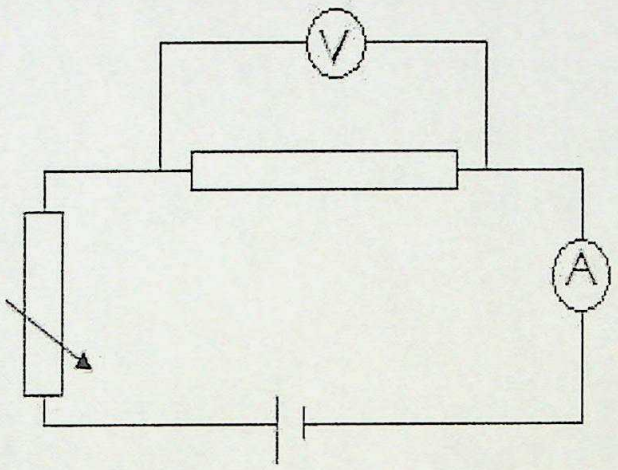
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TASK: INVESTIGATING THE RELATIONSHIP BETWEEN VOLTAGE AND CURRENT IN A CONDUCTOR.

Aim: To Investigate the relationship between voltage and current in a conductor

Procedure

1. Connect the circuit as shown in the diagram below.



[15 marks]

2. Set the power supply voltage to 2V and record the ammeter and voltmeter readings. Repeat step **two (2)** with different power supply voltages of (3V,4V ,5v and 6V) and record your measurements. **[15 marks]**
3. Plot the graph of voltage against current. **[5 marks]**
4. Draw a line of best fit. **[2 marks]**
5. Describe the shape of the graph. **[2 marks]**
6. Determine the resistance of the fixed resistor using the gradient. **[3 marks]**
7. State **two (2)** precautions to be undertaken during the experiment. **[2 marks]**
8. determine the physical quantity represented by the gradient. **[1 mark]**

[Total = 45 marks]