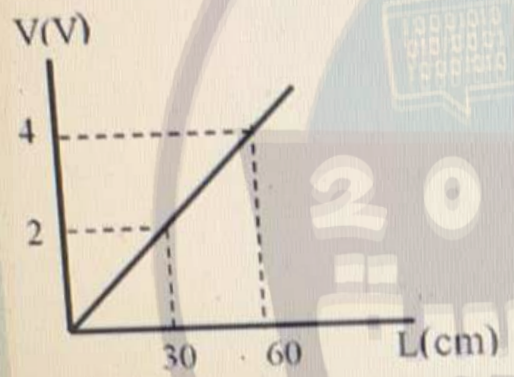
According to the calibration curve of a potentiometer as shown, the voltage (in V) at the position 52cm is:

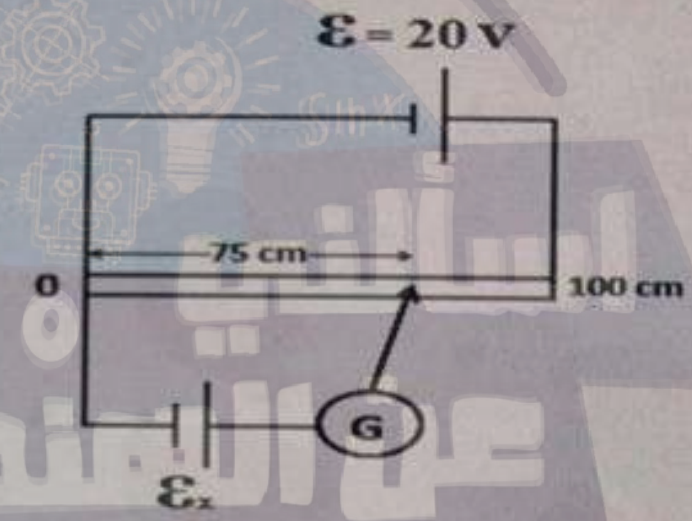


Select one:

- a. 3.20
- b. 3.07
- c. 3.47

In the **Potentiometer Experiment**
What is $\mathcal{E}_x$ when the galvanometer (*G*) reads *Zero*?

a) 2.5
b) 3.25
c) 7.5
d) 15
e) 75



Select one:

- a. a
- b. b
- c. c
- d. d

In The Potentiometer Experiment:

In order to achieve high accuracy, the slide wire of a potentiometer should be:

a) As short as possible
b) Neither too small not too large
c) Very thick
d) As long as possible
e) None of the above

In The Potentiometer Experiment:

Let the cylindrical wire has a resistance R and resistivity ρ. If its length and diameter are BOTH cut in half, what will be its resistance?

a) $4R$
b) $2R$
c) R
d) $R/2$
e) $R/4$

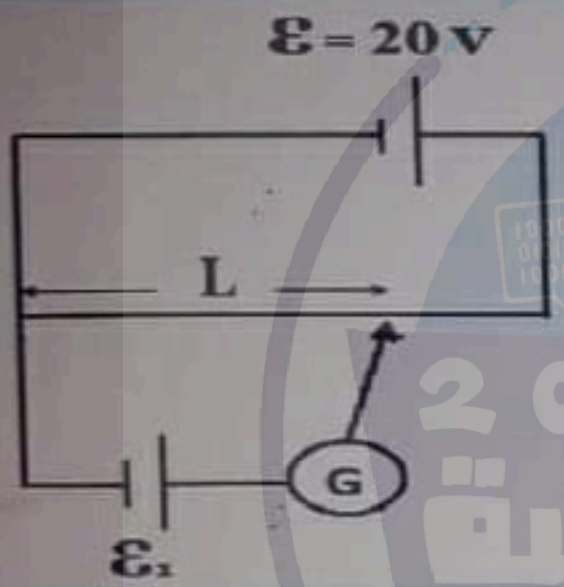
In the Potentionmeter experiment, if the balance point in the galvanometer was obtained at point C, where AC = 35 cm, AB (the wire Length on the meter stick) = 100 cm, and the power supply of the circuit is rated at 9 Volts, the value of Ex (in Volts) is:

- a. 3.15
- b. Zero
- c. 5.85
- d. 9

In the Potentiometer experiment, which of the following must be true about the wire on the meter stick used in the experiment?

- a. It must have a uniform cross sectional area
- b. It must be made of copper
- c. All other answers are Correct
- d. Its length must be 100 cm

Consider the Potentiometer circuit below. The balance point is a distance L from the left end of the meter wire. The position of the balance point along the wire depends on:



- a. Only the total length of the wire.
- b. Only the known emf of the power supply.
- c. The unknown emf and the total length of the wire.
- d. The emf of the power supply, the unknown emf, the resistivity of the wire, and the total length of the wire.
- e. Both the unknown emf and the known emf of the power supply.

Clear my choice

Time left 0:15:16

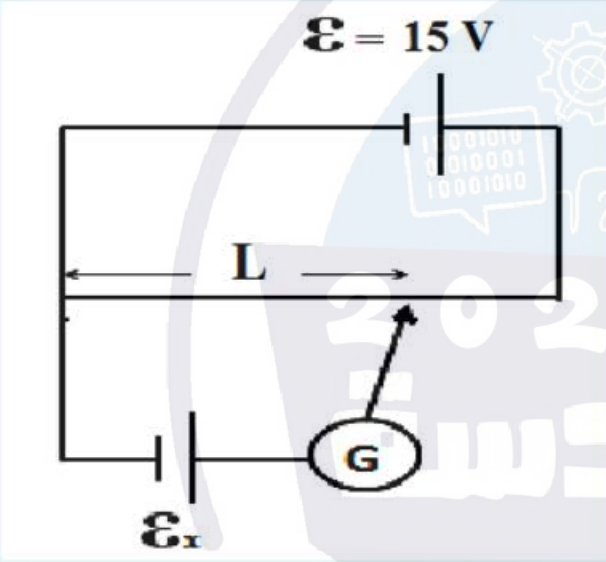
Question 5

Not yet answered

Marked out of 2.5

Flag question

The figure below is the Potentiometer circuit, showing the balance point at a distance L from the left end of the meter wire. The position of the balance point along the wire depends on:



- a. The known emf of the power supply and nothing else.
- b. The unknown emf, the emf of the power supply, the total length of the wire, and the resistivity of the wire.
- c. Both the emf of the power supply and the unknown emf.
- d. The total length of the wire and nothing else.
- e. The total length of the wire and the unknown emf.

Clear my choice

Time left 0:13:20

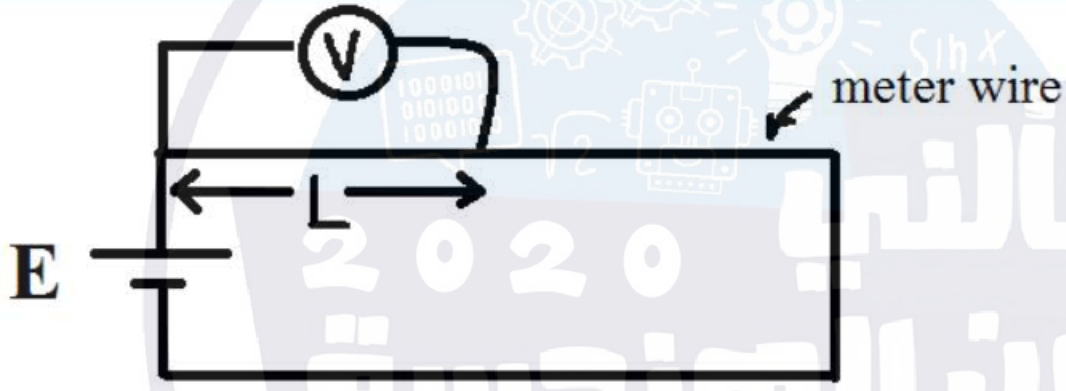
Question 6

Not yet answered

Marked out of 2.5

Flag question

In the Potentiometer experiment, let the known emf of the power supply be E = 20 volts. The slope of the graph V vs L (where L is the length in cm of the wire segment shown in the figure, and V is the potential difference measured by the voltmeter between the ends of the wire segment of length L) is:



- a. 0.2 V/cm
- b. 20 V/cm
- c. 0.1 L V/cm
- d. 10 L V/cm
- e. 20 cm/V

Clear my choice

Time left 0:35:20

Question **4**

Not yet answered

Marked out of 2.00

Flag question

During the Potentiometer experiment, which of the following is true when we find the balance point?

- a. The potential difference across the wire is the same as during calibration.
- b. The unknown emf is equal to the potential difference between the two ends of the wire.
- c. The potential difference between the beginning and end of the wire is the same as the unknown emf.
- d. The potential difference between the beginning of the wire and the balance point is zero.
- e. The potential difference between the end of the wire and the balance point is zero.

Clear my choice

Next page