PREDICTION 1

QUESTION 2

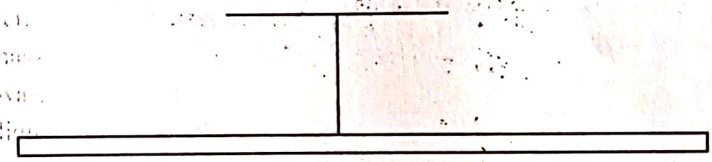
PART A

- A sewing thread
- A metre rule
- An equilateral triangular glass prism
- One 50g mass
- 200ml of water in a beaker
- 200ml of liquid L (glycerine)
- A boss, clamp and stand
- Tissue paper

(relative density of glass being tested)

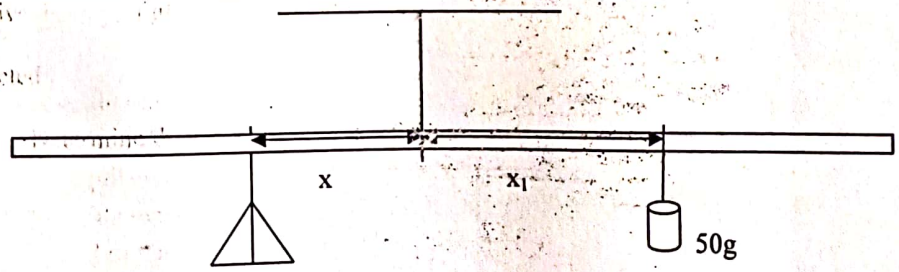
Expected

i. Determine the centre of gravity of the metre rule



Record the point of balance = _____ cm

ii. determine the weight of the glass block in air using moments



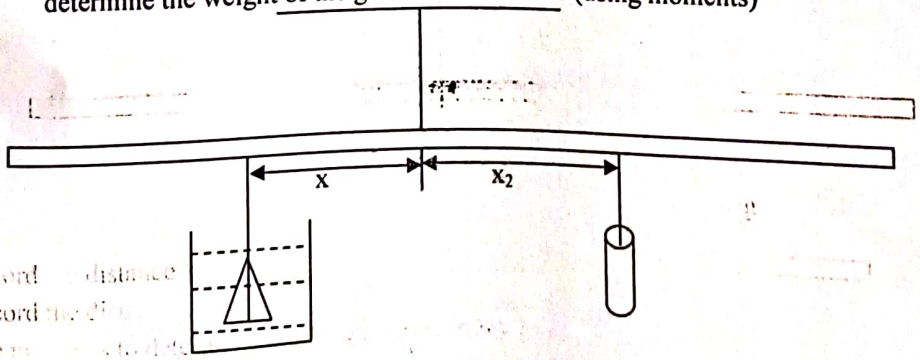
Record the distance x = _____ cm

Record the distance y = _____ cm

Use moments to determine the weight of the block in air.

W_1 = _____ N

iii. determine the weight of the glass block in water (using moments)



Record the distance x_2 = _____ cm

Use moments to determine the weight of the block in water.

W_2 = _____ N

iv. determine the weight of the block in liquid L using moments

Remove the block from water. Wipe the water using a tissue paper. Repeat the procedure above for liq
L and determine the weight of the block in liquid L.

W_3 = _____ N

v. use a given formula to determine the relative density of glass.

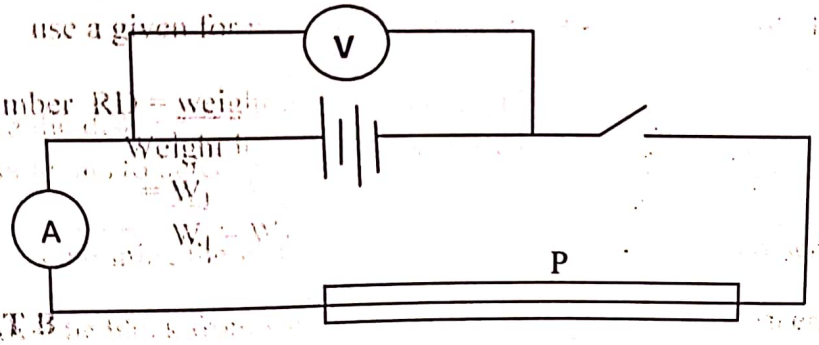
Remember RD = $\frac{\text{weight in air} - \text{weight in L}}{\text{Weight in air} - \text{weight in water}}$

$= \frac{W_1 - W_3}{W_1 - W_2}$

PART B

EXPECTD

i. Measure the EMF of the two cells. When the switch is open.



E = ----------volts

ii. use ammeter-voltmeter method to determine the resistance of the wire labelled P (nichrome wire)
Read the voltmeter and ammeter reading.

P.d V = _____ v

Current I = _____ A

Use ohm's law to determine the resistance of P

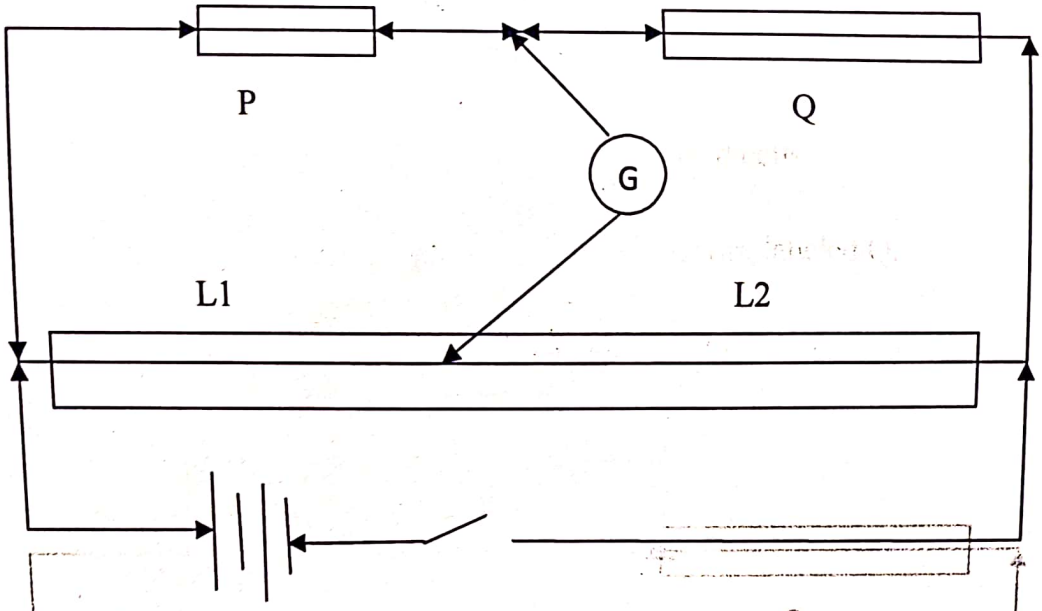
Given that V = IP, determine the resistance of the wire P.

P = _____ ohms

Gien that E = V + Ir, determine the internal resistance of the combined cells

r = _____ ohms

iii. Use meter bridge method to determine the resistance of the wire labeled Q.



Record the balance point ie distance from A to X and from X to B

L1= _____

L2 = _____

Use a given ratio or formula to determine the unknown resistance.

$\frac{P}{Q} = \frac{L1}{L2}$

There is other option of the formula to explore too.