PHYSICS PRACTICAL SS3

1. Using the diagram above, carry out the following instructions
2. Place the pin Y horizontally inside the cylinder provider. Pour some water on the pin in the cylinder such that the length of the water column, l = VY = 10cm.
3. Insert another pin X in the cork held by the boss of the retort stand
4. Adjust the position of X vertically upward or downward until it coincides with image I of Y formed by refraction at V.
5. Read and record the distance h = XY
6. Repeat the procedure for four other values of l = 15, 20cm, 25 and 30cm
7. In each case measure and record the corresponding value of h. tabulate your readings.
8. Plot a graph of h on the vertical axis and against l on the horizontal axis
9. Determine the slope, S, of the graph
10. Evaluate K₁ = 1 – S , also K₂ = 1/ K₁
11. State two precautions taken to ensure accurate results

DIAGRAM SPACE

1. Connect the circuit as shown above
2. Close the key. Read and record the current I₀ when the jockey is not contact with AB.
3. Let J make contact with AB at C, such that AC = l = 25cm. Close the key, read and record the current I
4. Evaluate l⁻¹.
5. Repaet the procedure for four other values of l = 40, 55, 70 and 85cm. Tabulate your reading
6. Plot a graph of I on the vertical axis against l⁻¹ on the horizontal axis.
7. From your graph, deduce the value of I when l⁻¹ = 0. Evaluate I₀/I.
8. State 2 precaution taken to ensure accurate results.