# LSF KNOWLEDGEBASE

**Name**:……...…… **Index No**…….

**232/3**
**PHYSICS**
**PRACTICAL**
**PAPER 3**

**Candidate's Signature**:……

**Date:……Class …….**

## LSF Knowledgebase SERIES

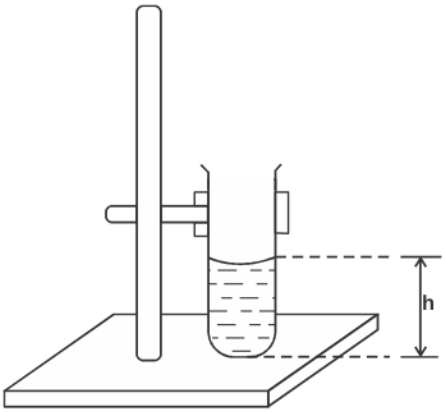
You are provided with the following :
- a boiling tube
- a measuring cylinder
- a half metre rule
- water in a container
- a stand complete with boss and clamp
- vernier callipers (may be shared)

Proceed as follows :

a) Using the vernier callipers measure the internal diameter, d, of the boiling tube.

d = ..... cm. (1 mark)

b) i) Clamp the boiling tube vertically as shown in the figure below.

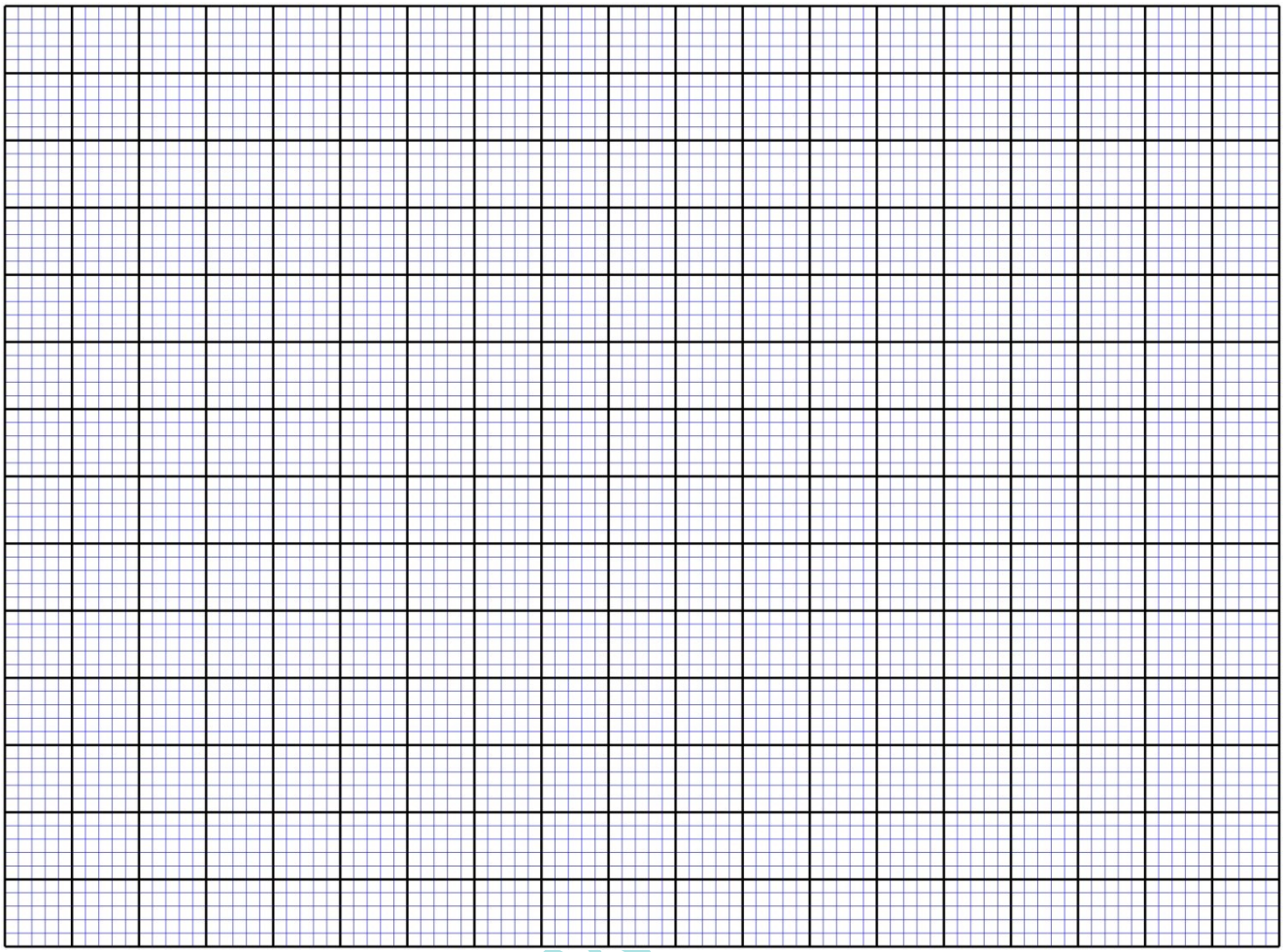



ii) Using the measuring cylinder pour 15cm $^3$ of water into the boiling tube. Measure and record in table below the height h, of water in the boiling tube.

iii) Repeat the procedure in b (ii) for other volumes of water, V, shown in the table. (5 marks)

| Volume , V, of water. ($cm^3$) | Height, h, of water. (cm) |
|---|---|
| 15 | |
| 20 | |
| 25 | |
| 30 | |
| 35 | |
| 40 | |

c) Plot a graph of V (y-axis) against h on the grid provided. (5 marks)



d) i) From the graph determine the slope S and its units. (3 marks)

ii) Determine the value of constant k given that $4S = kd^2$. (2 marks)