

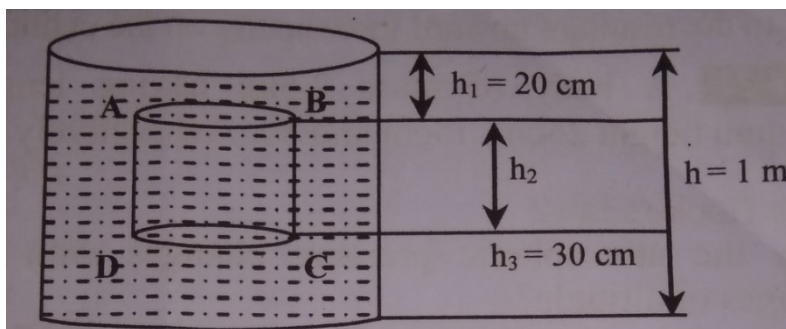
**CHAPTER 5 : STATE OF MATTER AND PRESSURE**
Instructions:

- ✓ Watch the uploaded video class from school's website/You Tube channel. For becoming more clear about the basics, watch more than once, if needed.
- ✓ Contact me in case of any difficulty in understanding.

(Questions given in this worksheet are important questions for all exams)

Creative Questions

1. A pot is filled with water and another one is filled with kerosene. First pot's height is 75cm. Water and kerosene have a density of  $1000\text{kgm}^{-3}$  and  $800\text{kgm}^{-3}$  respectively. There is another object whose volume is  $400\text{cm}^3$ .
  - a) Determine the pressure working on the bottom surface of the first pot.
  - b) If the object is drowned in 1st and 2nd pot, in which pot buoyancy will be greater than the other?
  
2. Observe the figure carefully and answer the questions. The radius of the cylinder ABCD is 5cm.



- a) Determine the pressure of the liquid at point C in stem.
- b) The weight of displaced liquid by the cylinder is equal to the upward resulting force acting on the cylinder. Prove this in light of the given information of above stem.