



Physics

Worksheet 6 : 17/08/2020

Class - IX

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. The weight of a body of volume 400cm^3 in the air is 19.6N . If it is immersed in water, its weight becomes 15.68N . At experimental place acceleration due to gravity $g = 9.8 \text{ m/s}^2$.
 - a) Find out the density of the body of the stem.
 - b) Does the above stem support Archimedes' Principle? Give opinion through mathematical analysis.
2. A rectangular object with a mass of 200g has an area and height of 24 cm^2 and 3 cm respectively. The weight of the object in kerosene is 1.4N . It is to be mentioned that, density of kerosene is 800kgm^{-3} .
 - a) How much is the density of the element of the object?
 - b) Mathematically analyze if the given stem follows the Archimedes Law.