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**Subject** :- Physics  
**Title** :- Intensity of Buoyancy Force

### **Abstract:-**

In this research I have given hypothesis and formula of intensity of buoyancy force or buoyancy.

### **Introduction:-**

We know that the buoyancy force or buoyancy is found in the liquids. When any object is immersed in a liquid, then a force acts upwards on that object. This force is called buoyancy force. The Buoyancy force is found due to the buoyancy of the liquid. There is also the intensity of this buoyancy force or buoyancy, which is called the intensity of the buoyancy force or buoyancy.

### **Research Methodology (Process) And Diagram:-**

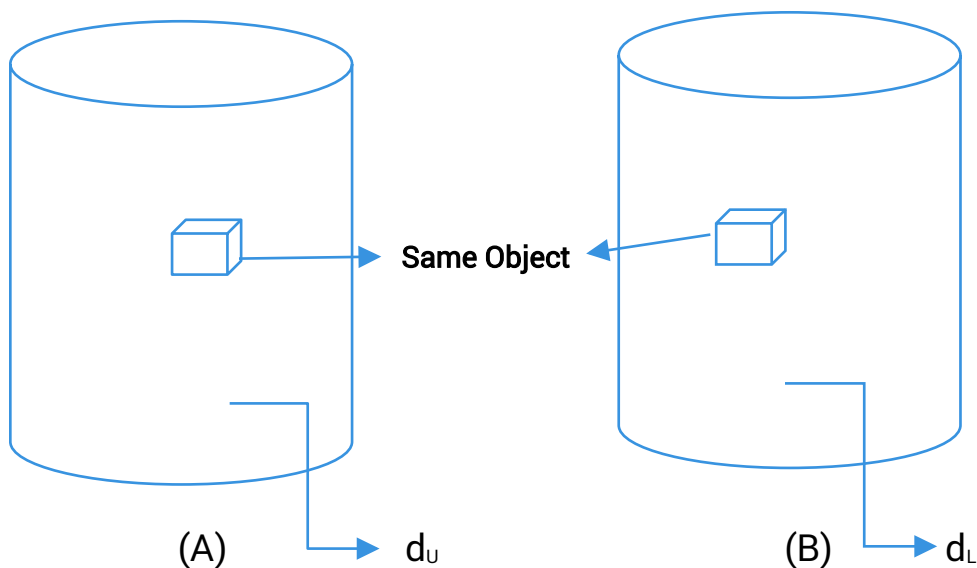
The intensity of the buoyancy force or buoyancy of any liquid is equal to its density. I.e

$$I = d \text{ kg/m}^3 \quad (\text{where } d \text{ is density})$$

The buoyancy properties of any liquid is due to its density. Due to its density, any liquid imposes buoyancy force on any object. The intensity of buoyancy force or buoyancy of any liquid is caused by the own density of liquid, not because of the density, area and volume of the object. If the liquid does not have density, then the liquid never puts buoyancy force on the object. Intensity of buoyancy and intensity of buoyancy force both are same hypothesis.

## Experiment:-

In diagram, two beakers are A and B. Beaker A has a high density liquid and Beaker B has low density liquid. If we dip any object in both beakers A and B respectively then on measuring, the weight of the object in Beaker A decreases more than that of Beaker B.



(Where  $d_u > d_L$ ,  $d_u$  is high density of liquid and  $d_L$  is low density of liquid.)

But the density of liquid of beaker A is greater than the density of liquid of beaker B so cause of density, Beaker A puts more buoyancy force on object and beaker B puts less buoyancy force on object. I.e. due to different density of the fluid, The buoyancy force on the object is also different. I.e. we can say that the object experiences the different intensity of buoyancy force or buoyancy in both beakers. Because the density of the liquid of beaker A is more than the density of liquid of beaker B therefore, the object experiences more of the intensity of the buoyancy force or buoyancy in the liquid of beaker A.

**Note:-** Liquid (Liquid or gas), buoyancy force is buoyant force, buoyancy is the property of liquid and buoyancy force is force of the liquid. Intensity of buoyancy and intensity of buoyancy force both are same hypothesis.

## Conclusion:-

- 1.** In this research I have given hypothesis and formula of intensity of buoyancy force or buoyancy
- 2.** We can count intensity of buoyancy force or buoyancy from this equation.

**Reference:-** No sentence have been copied in this research paper.