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Solution 72
The two equal weights of unequal volumes which are balanced in air, will get imbalanced when they are completely dipped in water because due to their unequal volumes, they will displace unequal volumes of water and hence suffer unequal loss in weight.
Solution 73
No, it is not necessary that their weights in air should also be the same. This is because the two bodies have undergone the same loss in weight on completely immersing in water due to their equal volumes and not because of their equal weights, so they may have different weights in air.
Solution 74
The body will sink less in water. This is because the density of water is more than that of kerosene due to which water will exert a greater upward buoyant force on the body.
Solution 75
The reading on spring balance will be zero. This is because the weight of floating block of wood is fully supported by the liquid in which it is floating and hence it does not exert any force on the spring balance.
Solution 76
When a lot of salt is dissolved in water, then the density of salt solution becomes much more than pure water. Due to its much higher density, the salt solution exerts a greater upward buoyant force on the egg making it rise and then float.

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Solution 77
The reading of spring balance will not change if a cork is placed in water because cork, being lighter than water, floats in water.
(b)The reading of spring balance will change if a piece of heavy metal is placed in
water because heavy metal being denser than water, sinks in water.
Solution 78
Volume of golf ball = rise in water level = 30 cm^3

$$\text{Volume of golf ball} = \text{rise in water level} = 30\,cm^3$$
$$\text{Density of ball} = \frac{\text{Mass of ball}}{\text{Volume of ball}} = \frac{33}{30} = 1.1\,g/cm^3$$

Solution 79
a) The boat sinks a little more in water, that is, the boat floats lower in water.
b) The weight of water displaced (by the submerged part of the boat) increases.
c) The buoyant force acting on the boat increases.
Solution 80
The sheet of tin sinks in water because the density of tin is higher than that of water. When the same sheet of tin is converted into a box or a boat, then due to the trapping of lot of 'light' air in the box or boat, the average density of the box or boat made of tin sheet becomes lower than that of water and hence it floats in water.

********** END **********