

NAME:

FLOATING AND SINKING

- 1. C
- 2. B
- 3. A
- 4. B
- 5. B

6.

- a. 100 cm^3
- b. $0.13 \times 100 = 13 \text{ N}$
- c. 13 N
- d. float

7.

(i) Weight of the substance in air = 6N

Weight of the substance in water = 4N

Lost weight of the substance in water = $6 - 4 = 2\text{N}$ [1m]

Upthrust acting on the body = Loss of weight of the substance in water

= 2N [1m]

(ii) Weight of water displaced = 2N [1m]

Volume of water displaced = 200 cm^3

Volume of the substance = 200 cm^3 [1m]

R.D. of the substance = wt. of the substance in air/loss in wt in water
= $6\text{N}/2\text{N}$
= 3

[Total 5m]

8.

(i) when the cork is under water, despite its weight, there is some force, called upthrust,

which pushes it upwards[1m].

(ii)

Volume of the body submerged in the liquid - (V), or volume of the liquid displaced - (V) [1m]

Density of the liquid - (d) [1m]

Acceleration due to gravity - (g) [1m]

i.e., Upthrust = $V \times d \times g$

[Total 4m]