

Read Page Numbers 138 to 142 and answer the following questions

1. Why are concrete sleepers are kept below the iron rails of railway tracks?



2. When does the maximum loss in weight of an object occur?
3. What are the factors affecting the buoyant force?
4. Why is it easy to swim in sea water?
5. How does the hot air balloon rise up in the air?
6. What is Archimedes' Principle?
7. What is the application of Archimedes' Principle?
8. What are the two forces acting on a body placed in a liquid?
9. How do a sub marine sink and again come back to the surface of the sea?
10. What does the relative density of a substance explain?
11. A ball of mass 4 kg of density is completely immersed in water of density 10^3 kg m^{-3} . Find the force of buoyancy on it. (Given $g=10\text{m/s}^2$).
12. The density of gold is 19 gm/cm^3 . Find the volume of 95 gm of gold.

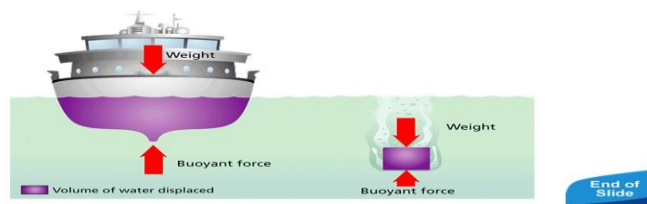
13. Calculate the density of an object of volume 3 m and mass 9 kg. State whether this object will float or sink in water. Give reason for your answer



14. Explain the principle of floatation in the above diagram.

15. A solid block of steel when placed in water sinks but a ship floats why?

- A solid block of steel sinks in water. A steel ship with the same mass floats on the surface.



BIOLOGY

1. What are the causes of diseases?
2. Who discovered 'vaccine' for the first time? Name two diseases which can be prevented by using vaccine.
3. Which one of the following causes kala-azar?

(a) Ascaris (b) Trypanosome (c) Leishmania (d) Bacteria

4. Mention human activities that lead to air pollution in two points.

5. What is greenhouse effect? Name a green house gas?

6. Differentiate between renewable and non-renewable resources.

7. Mention two ways of restoring fertility of soil.

8. Why water is so important in life?

9. CFC stand for

10. Mention importance of air.