ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

Sub: Physical Science **Class: 8** **Date: 01.03.21**

Duration: 40 min **Worksheet Solution 14** **Full Marks: 15**

PHYSICAL QUANTITIES AND MEASUREMENT

Choose the Correct options:

1. A square block has an edge 8 cm. If the mass of the block is 1.536 kg. Find the density of the material.
   (a) 2 g/cc
   (b) 3 g/cc
   (c) 4 g/cc
   (d) 6 g/cc
2. The density of a block is 4 g/cc. When immersed in a liquid in which it doesn't dissolve the rise in level of liquid is from 45 cc to 57 cc. What is the mass of the block?
   (a) 36 g
   (b) 48 g
   (c) 72 g
   (d) 108 g
3. A cube of side 2 cm is immersed in a measuring cylinder containing water up to the level of 20 cc. What is the final level of water?
   (a) 22 cc
   (b) 24 cc
   (c) 28 cc
   (d) 40 cc
4. A wooden block of sides 4 cm x 5 cm x 3 cm weighs 48 g. What is the density of the wooden block?
   (a) 0.8 g/cc
   (b) 1.2 g/cc
   (c) 0.9 g/cc
   (d) 2.4 g/cc
5. A measuring cylinder contains a liquid measuring 20 cc. The mass of the measuring cylinder is 12 g. The mass of the measuring cylinder with the liquid is 32 g. What is the density of the liquid?
   (a) 0.8 g/cc
   (b) 1 g/cc
   (c) 1.2 g/cc
   (d) 2 g/cc
6. An object weighing 100 N in air was found to weigh 75 N when fully submerged in water. The relative density of the object is :
   (a) 4.0
   (b) 4.5
   (c) 2.5
   (d) 1.25
7. A floating body displaces :
   (a) a volume of liquid equal in magnitude to its own volume
   (b) a volume of liquid equal to its own submerged weight
   (c) a weight of liquid equal in magnitude to its own weight
   (d) a weight of liquid which depends upon the volume of the container

8. When a block of ice floating on water in a container melts, the level of water in the container :
   (a) rises
   (b) first falls and then rises
   (c) remains the same
   (d) falls
9. When a ship enters sea from a river one can expect it :
   (a) to rise a little
   (b) to sink a little
   (c) to remain at the same level of draft
   (d) to rise or fall depending on whether it is of wood or steel
10. Which of the following apparatus is used to measure the volume of an irregular solid?
   (a) Eureka can
   (b) Pipette
   (c) Beaker
   (d) Bunsen burner
11. If a substance has mass 25 g and has a volume of 10 cc, its density is
   (a) 25000 kg/m^3
   (b) 2.5 kg/m^3
   (c) 2.5 g/cm^3
   (d) 250 g/cm^3
12. The density of mercury is 13600 kg/m3. Its relative density is
   (a) 136
   (b) 13.6
   (c) 1.36
   (d) 13600
13. The density of silver in CGS system is 10.5 g/cc. Its density in SI system is
   (a) 10.5 kg/m^3
   (b) 105 kg/m^3
   (c) 1050 kg/m^3
   (d) 10500 kg/m^3
14. Units of Relative Density are :-
   (a) Kg/m3
   (b) Unit less
   (c) Depends on the density of the substance
   (d) Depend on the density of water
15. Mass per unit volume of a substance is called
   (a)Density
   (b)Relative density
   (c)specific gravity
   (d)None