

**Question I Choose the correct option. [4]**

- 1- When water is heated from 0°C to 4°C
  - a) Volume decreases, density decreases
  - b) Volume decreases, density increases
  - c) volume increases, density decreases
  - d) volume increases, density increases
  
- 2- The density of the aluminium is 2.7g/cm<sup>3</sup> and the density of brass is 8.4g/cm<sup>3</sup>. For the same mass, the volume of
  - a) Both will be same
  - b) Aluminium will be less than that of brass
  - c) Aluminium will be more than that of brass
  - d) none of these
  
- 3- The correct formula for measuring of the volume of a cylinder is
  - a)  $\frac{4}{3} \pi r^3$
  - b)  $\frac{4}{3} \pi$
  - c)  $\pi r^2 h$
  - d)  $\pi r^3 h$
  
- 4- The incorrect relation is
  - a) volume=area x thickness
  - b) density=mass/volume
  - c) distance=speed x time
  - d) time=speed/distance

**Question - II Answer the following questions.**

1. Show the relation between SI and cgs units of density [2]

2. Define the physical quantity represented by the units
  - a. kilogram [2]
  - b. cubic centimeter
  
3. Name the device which measures
  - a. atmospheric pressure
  - b. the speed of a vehicle at any instant [2]
  
4. Fill in the blanks [4]
  - a. 1 ml = \_\_\_\_ m<sup>3</sup>
  - b. 1 hectare = \_\_\_\_ m<sup>2</sup>
  - c. 1000 cm/s = \_\_\_\_ m/s = \_\_\_\_ km/h
  
5. State true or false:
  - a. the density of the substance changes with the change in its shape and size
  - b. equal volumes of different substances have different masses [2]
  
6. A car covers a distance of 1200m in 3 minutes and 20 seconds. What is the speed of the car? [2]
  
7. A rectangular piece of wood measures 4cmx6cmx8cm and has a mass of 20g. What is the density of the piece of wood? Will this piece float in water or not? [2]

\*\*\*\*\*ALL THE BEST\*\*\*\*\*

