INDIAN SCHOOL NIZWA - WORKSHEET

CHEMISTRY

CH: 2 Is matter around us pure?

Name: _____ Date:_____ Class: IX Sec: ___

1. The teacher instructed three students 'A', 'B' and 'C' respectively to prepare a 50% (mass by volume) solution of sodium hydroxide (NaOH). 'A' dissolved 50g of NaOH in 100 mL of water, 'B' dissolved 50g of NaOH in 100g of water while 'C' dissolved 50g of NaOH in water to make 100 mL of solution. Which one of them has made the desired solution and why?
2. Classify the substances into elements, mixtures and compounds

Cu, wood, Aluminium , Tea, Soil, ammonia , NaCl solution, sugar crystals, Potassium permanganate, Calcium carbonate, Diamond, Bronze, magnesium ,gun powder, Sulphur dioxide, neon, Glass, hydrochloric acid

3. An unknown substance A on thermal decomposition produces B and C. Is A an element, a compound or a mixture?
4. A solution of sodium chloride does not show Tyndall effect, whereas a mixture of water and milk shows Tyndall effect. Why?
5. Water is a compound and not a mixture." Justify this statement giving four reasons.
6. A solution contains 30 g of glucose, 20 g of salt in 500 mL of water. Calculate the mass per cent of (a) glucose, (b) salt (density of water = 1 g /mL).
7. Name the materials which show the following properties i) Average properties of constituents contained in it ii) Has a fixed ratio of the components

iii) Can't be converted into simpler forms by ordinary chemical methods

8. Smoke and fog both are aerosols. In what way are they different?
9. A solution has been prepared by mixing 5.6 mL of alcohol with 75 mL of water. Calculate the percentage (by volume) of alcohol in the solution.

II **Assertion – Reason Questions**

10. Assertion: A solution is a homogeneous mixture of two or more substances.
Reason: A solution scatters a beam of light passing through it.

11. Assertion: Air and sea water are pure substances.
Reason: Pure substances are made up of only one kind of particles.

12. Assertion: Germanium,Arsenic and Antimony are classified as metalloids.
Reason: Germanium,Arsenic and Antimony possess some properties of metals and some properties of non metals .

13. Assertion: The particles of a suspension can be seen by naked eye.
Reason: When a suspension is left undisturbed, it becomes unstable

iii. Competency based questions

14. Table list the property of four substances.

	Is it shiny	How does it conduct electricity?
Substance 1	Yes	Very good
Substance 2	No	Very poor
Substance 3	Yes	Medium
Substance 4	No	poor

i. Which substance is most likely to be a metalloid?

ii. Which substance is most likely to be a metal?

iii. Which substance is most likely to be a non-metal?

15.

A gas cylinder has the following symbol on its surface.



What does it denote?