

International Indian school Buraidah

Worksheet of the year 2024-25

Class -9th Chemistry

Lesson-2 Is Matter Around Us Pure?

A. Multiple Choice Questions & Answers

1. Which of the following material fall in the category of a Elements?

(a) Milk (b) Ice (c) Iron (d) Salt

2. Which of the following material fall in the category of a pure substance?

(a) Brick (b) Wood (c) Ice (d) Air

3. Which of the following as the example of uniform composition?

(a) water in alcohol (b) water in oil

(c) water in sand (d) water in cement

4. Majority of the elements are

(a) gas (b) liquid (c) not confirm (d) solid

5. Which of the following mixture shows Tyndall effect?

(a) mixture of copper sulphate and water. (b) mixture of water and milk.

(c) mixture of water and alcohol (d) mixture of water and sugar.

6. Which of the following mixture is not solution?

(a) air (b) sea water (c) soda water (d) soil

7. Elements, become liquid at the temperature 300k, which are they?

(a) gallium and cesium (b) chromium and cesium

(c) chromium and gallium (d) Barium and gallium

8. Which of the following gas is the smell of rotten eggs?

(a) Carbon dioxide (b) Hydrogen sulphide

(c) Hydrogen (d) oxygen

9. Which of the following element is nonmetal?

(a) iron (b) Boron (c) silicon (d) carbon

10. Two elements are liquid in room temperature, which are they?

(a) Bromine and Iodine (b) Mercury and Bromine

(c) Mercury and Iodine (d) Iodine and Fluorine

1. What is the general name of the materials which contain at least two pure substances and show the properties of the constituents?

2. Which of the following is a mixture?

Salt, Air, Water, Alum, Sugar

3. Classify the following into elements and compounds:

a. H₂O b. He c. Cl₂ d. CO e. Co

4. Name the property:

(a) Which allows metals to be hammered into thin sheets.

(b) Which enables metals to be drawn into wires.

5. Which of the following are 'pure substances'?

Ice, Milk, Iron, Hydrochloric acid, Calcium oxide, Mercury, Brick, Wood, Air

6. What is the other name for impure substances? Give two examples of impure substances.

7. State three reasons why you think air is a mixture and water is a compound.

8. Explain why, hydrogen and oxygen are considered elements whereas water is not considered an element.

9. Compare the properties of metals and non-metals with respect to

(i) malleability (ii) ductility, and (iii) electrical conductivity

10. Choose the solutions from among the following mixtures: Soil, Sea-water, Air, Coal, Soda-water

11. Give two reasons for supposing that water is a compound and not a mixture.

12. List five characteristics by which compounds can be distinguished from mixtures.

13.(a) Differentiate between homogeneous and heterogeneous mixtures.

(b) Classify the following materials as homogeneous mixtures and heterogeneous mixtures.

Soda-water, Wood, Air, Soil, Vinegar, Alcohol and water mixture, Petrol and water mixture, Chalk and water mixture, Sugar and water mixture, Copper sulphate solution.

14. Classify the following into metals, non-metals and metalloids:

Silicon, Mercury, Diamond, Sulphur, Iodine, Germanium, Sodium, Carbon, Magnesium, Copper, Boron, Helium

15. Draw a flow chart for the schematic representation of different types of matter.

16. Out of a colloid, solution and a suspension:

(a) Which one has the smallest particles?

(b) Which one has the largest particles?

18. Calculate the concentration of solution which contains 2.5 g salt dissolved in 50 g water.

19. A solution contains 5.6 mL of alcohol mixed with 75 mL of water. Calculate the concentration of this solution.

20. What happens when the temperature of a saturated sugar solution is increased?

21. Which of the two will scatter light: soap solution or sugar solution? Why?

22. Define (a) solute, and (b) solvent

23. What is the difference between solutions and colloids?

24. What is the difference between colloids and suspensions?

25. Classify the following into true solutions and colloidal solutions: Ink, Salt solution, Starch, Blood, Sugar Solution

26. Explain what happens when a beam of light is passed through a colloidal solution.

27. Which of the following will show Tyndall Effect and why?

(a) Salt solution (b) Starch solution (c) Milk (d) Copper sulphate solution

28. Classify the following as physical or chemical changes:

(i) Cooking of food (ii) Boiling of water (iii) Cutting of trees

(iv) Dissolving salt in water (v) Digestion of food (vi) Melting of ice