INDIAN SCHOOL DARSAIT
DEPARTMENT OF CHEMISTRY

Subject : CHEMISTRY Topic : IS MATTER AROUND US PURE Date of Worksheet : 13.08.2017

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Name of the Student :_____ Class & Division : IX---- Roll Number : __

1	Define pure substance from the chemist's point of view.	1
2	Differentiate between solute and solvent.	1
3	Smoke and fog both are aerosols. In what way are they different?	1
4	Explain why filter paper cannot be used to separate colloids?	1
5	Classify the following into elements and compounds. a. H_2O b. He c. Cl_2 d. Co e. CO_2 f. Cu g. FeS h. Fe i. S	½ mark each
6	Explain why particles of a colloidal solution do not settle down when left undisturbed, while in the case of a suspension they do so?	1
7	What is the name of the clear liquid formed when a solid dissolves in a liquid?	1
8	Classify the following into solutions, suspensions and colloids: (½ mark each) Soda water, Milk, Brine, Blood, Smoke in air, Ink, Chalk-water mixture, Milk of magnesia, Shaving cream	½ mark each
9	**Name the process associated with the following** a) Dry ice is kept at room temperature and at one atmospheric pressure b) Milk is churned to separate cream from it. c) Settling of sand when a mixture of sand and water is left undisturbed for some time. d) Fine beam of light entering through a small hole in a dark room, illuminates the particles in its path.	1 mark each
10	Can we separate alcohol dissolved in water by using a separating funnel? Why?	1
11	Explain why, a solution of salt in water is considered a mixture and not a compound.	1
12	Two liquids 'A' and 'B' are miscible with each other at room temperature. Which separation technique will you apply to separate the mixture of 'A' and 'B' if the difference in their boiling point is 15^0 C?	1
13	What would you observe when a) Saturated solution of potassium chloride prepared at 60^0C is allowed to cool to room temperature.	1 mark

	b) An aqueous sugar solution is heated to dryness. c) If carbon disulphide is added to a mixture of iron filings and sulphur powder.	each
14	Calculate the mass of sodium sulphate required to prepare its 25% (mass percentage) solution in 100 g of water.	2
15	Iron fillings and Sulphur were mixed together and divided into two parts, A and B. Part A was heated strongly while part B was not heated. Dilute hydrochloric acid was added to both the parts and evolution of gas was seen in both the cases. How will you identify the gases evolved?	2
16	A solution contains 20 g of sodium chloride in 180 g of water. Calculate the concentration in terms of mass percentage of solute in the solution.	2
17	A solution contains 5.6 ml of alcohol mixed with 75 ml of water. Calculate the concentration of this solution.	2
18	During an experiment the students were asked to prepare a 10% (Mass/Mass) solution of sugar in water. Ramesh dissolved 10g of sugar in 100g of water while Sarika prepared it by dissolving 10g of sugar in water to make 100g of the solution. (a) Are the two solutions of the same concentration? (b) Compare the mass% of the two solutions.	2
19	Classify the following as physical and chemical changes. Give reason for your answer. (a) Burning of Candle (b) Melting of Ice (c) Burning of petrol in an engine	2
20	Non- metals are usually poor conductors of heat and electricity. They are non-lustrous, non-sonorous and non-malleable a) Name a lustrous non-metal. b) Name a non-metal which exists as a liquid at room temperature. c) The allotropic form of a non-metal is a good conductor of electricity. Name the allotrope. d) Which non-metal is known to form large number of compounds?	2
21	State the principle of each of the following methods of separation of mixture. a. Centrifugation method b. Separation using separating funnel c. Separation by chromatography	3
22	How can we obtain different gases from air? Explain with the help of a flow diagram.	3