CHAPTER TEST-O2

1. A mixture of Sulphur and carbon disulphide is.
   A. Heterogeneous and shows Tyndall effect.
   B. Homogeneous and shows Tyndall effect.
   C. Heterogeneous and does not show Tyndall effect.
   D. Homogeneous and does not show Tyndall effect.
2. Tincture of iodine has antiseptic properties. This solution is made by dissolving.
   A. iodine in potassium iodide
   B. iodine in Vaseline
   C. iodine in water
   D. iodine in alcohol
3. Which of the following are physical changes?
   i. Melting of iron metal
   ii. Rusting of iron
   iii. Bending of an iron rod
   iv. Drawing a wire of iron metal

   a) (i), (ii) and (iii)
   b) (i), (ii) and (iv)
   c) (i), (iii) and (iv)
   d) (ii), (iii) and (iv)

4. Two chemical species X and Y combine to form a product P which contains both X and Y

   X + Y -----> P

   X and Y cannot be broken down into simpler substances by simple chemical reactions. Which of the following concerning the species X, Y and P are correct?
   i. P is a compound
   ii. X and Y are compounds
   iii. X and Y are elements
   iv. P has a fixed composition

   (a) (i), (ii) and (iii),
   (b) (i), (ii) and (iv)
   (c) (ii), (iii) and (iv)
   (d) (i), (iii) and (iv)

5. A colloid is a _____ mixture and its components can be separated by the technique known as _____.
6. Ice, water, and water vapors look different and display different _____properties but they are_____ the same.
7. A mixture of chloroform and water taken in a separating funnel is mixed and left undisturbed for some time. The upper layer in the separating funnel will be of_____ and the lower layer will be that of _____.
8. A mixture of two or more miscible liquids, for which the difference in the boiling points is less than 25 K can be separated by the process called_____.
9. When light is passed through water containing a few drops of milk, it shows a bluish tinge. This is due to the _____ of light by milk and the phenomenon is called _____ . This indicates that milk is a _____solution.
10. Give some examples of Tyndall effect observed in your surroundings?
11. The 'seawater' can be classified as a homogeneous as well as heterogeneous mixture. Comment.
12. Nonmetals are usually poor conductors of heat and electricity. They are non-lustrous, non-sonorous, non-malleable and are colored.
    (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) Name a non-metal which is known to form the largest number of compounds.
    (e) Name a non-metal other than carbon which shows allotropy.
    (f) Name a non-metal which is required for combustion.
13. Which of the following are not compounds?
    (a) Chlorine gas
    (b) Potassium chloride
    (c) Iron
    (d) Iron sulphide.
    (e) Aluminum.
    (f) Iodine
    (g) Carbon
    (h) Carbon monoxide
    (i) Sulphur powder
14. Classify each of the following, as a physical or a chemical change. Give reasons.
    (a) Drying of a shirt in the sun.
    (b) Rising of hot air over a radiator.
    (c) Burning of kerosene in a lantern.
    (d) Change the colour of black tea on adding lemon juice to it.
    (e) Churning of milk cream to get butter.
15. 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.

16. Arun has prepared 0.01% (by mass) solution of sodium chloride in water. Which of the following correctly represents the composition of the solutions?
    (a) 1.00 g of NaCl + 100g of water
    (b) 0.11g of NaCl + 100g of water
    (c) 0.01 g of NaCl + 99.99g of water
    (d) 0.10 g of NaCl + 99.90g of water
17. Calculate the mass of sodium sulphate required to prepare its 20% (mass percent) solution in 100g of water?
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.
19. What would you observe when
    (a) a saturated solution of potassium chloride prepared at 60°C is allowed to cool to room temperature.
    (b) an aqueous sugar solution is heated to dryness.
    (c) a mixture of iron filings and Sulphur powder is heated strongly.
20. 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?