

Class: VI
Subject: Chemistry
Topic: Pure Substances and Mixtures
No. of Questions: 20

1. H_2O and H_2O_2 are both _____ .
2. Which of the following method is used to separate a mixture of cooking oil and water?
 - (a) Filtration
 - (b) Separation using a separating funnel
 - (c) Fractional distillation
 - (d) Centrifugation
3. How are the following mixture separated? (Name the technique only).
 - (a) Sal ammoniac and common salt.
 - (b) Cream from milk.
 - (c) Coloured dyes in black ink.
4. A homogeneous solution in which the size of the particle is about _____ is called a true solution.
5. Which of the following methods is not used in the separation of two gaseous mixtures?
 - (a) Solvent extraction
 - (b) Diffusion
 - (c) Liquefaction
 - (d) Boiling
6. What is decantation?
7. How is centrifugation done? Describe the process of separation by centrifugation.

8. (a) Define sublimate.
- (b) Where is the cotton plug placed in the sublimation apparatus? What is the use of cotton plug in sublimation?
9. Which method is used to separate cream from milk?
- (a) Adsorption
(b) Centrifugation
(c) Distillation
(d) Crystallization
10. Give two examples each of homogeneous and heterogeneous mixture.
11. Name the elements present in the following compounds:
Baking soda and Sugar
12. What is sublimation? What types of mixtures can be separated using this technique?
13. What is atomicity? Give one example each of mono atomic, diatomic, tri atomic and tetra atomic molecule.
14. An amalgam is a solution of a ____ .
- (a) gas in solid
(b) solid in liquid
(c) solid in solid
(d) liquid in solid
15. Fill in the blanks:
- (a)
- (i) Inter-particle space between the ____ molecule is maximum.
(ii) Liquids flow from ____ to ____ level.
(iii) Solids have ____ density.
(iv) ____ sublimes on heating and leaves behind no residue.
(v) Molecules of gas are ____ from each other.
- (b) How will you separate the following mixtures?
- (i) Benzene and toluene
(ii) Water and carbon tetrachloride
(iii) Iodine and sand

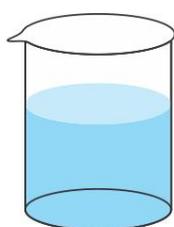
- (iv) Potassium nitrate and potassium chlorate
- (v) Methanol and ethanol

16. A _____ is a homogeneous material with a definite, invariable chemical composition and definite, invariable physical and chemical properties.

17. Which of the following is not an example of heterogeneous mixture?



Oil in water



Salt in water



Gun powder



Mixture of sulphur powder and iron filings

- (a) Oil in water
 - (b) Salt in water
 - (c) Gun powder
 - (d) Mixture of sulphur powder and iron filings
18. Which of the following properties is not applicable to pure substances?
- (a) Fixed composition.
 - (b) Presence of single type of particles.
 - (c) Presence of different types of particles.
 - (d) Homogeneous throughout the mass of the substance.
19. What is the principle behind the process of centrifugation?
- (a) Lighter particles are forced to the bottom and denser particles stay at the top when spun rapidly.
 - (b) Particles are separated based on the difference in colour.
 - (c) Denser particles are forced to the bottom and lighter particles stay at the top when spun rapidly.
 - (d) Particles are separated based on the difference in temperature.

20. The clear liquid which is left behind in the beaker after settling down of the sediments is called:
- (a) Solution
 - (b) Supernatant liquid
 - (c) Sediment
 - (d) Solvent

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