



CHEMISTRY

BOOKS - FULL MARKS CHEMISTRY (TAMIL ENGLISH)

MATTER AROUND US

Exercise Choose The Correct Answer

1. The separation of denser particles from lighter particles done by rotation at high

speed is calls _____

- A. Filtration
- B. sedimentation
- C. decantation
- D. centrifugation

Answer: D



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2. Among the following _____ is a mixture

A. Common salt

B. Juice

C. Carbon dioxide

D. Pure silver

Answer: B



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3. When we mix a drop of ink in water we get a

A. Heterogeneous mixture

B. Homogenous mixture

C. Compound

D. Suspension

Answer: B



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4. _____ is essential to perform separation by solvent extraction method

A. Separating funnel

B. Centrifuge machine

C. Filter paper

D. Sieves

Answer: A



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5. _____ has the same properties throughout the sample

A. Pure substance

B. Mixture

C. Colloid

D. Suspension

Answer: A



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Exercise State Whether The Following Statements Are True Or False If False Give The Correct Statement

1. Oil and water immiscible in each other



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2. A compound cannot be broken into simpler substances chemically



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3. Liquid- liquid colloids are called gels.



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4. Buttermilk is an example of heterogenous mixture.



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5. Aspirin is composed of 60 % carbon, 4.5 % Hydrogen 35.5 % Oxygen by mass Aspirin is a mixture



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Exercise Match The Following

1. Match the following

S.No.	A	B
1.	Element	(a) Settles down on standing
2.	Compound	(b) Impure substance
3.	Colloid	(c) Made up of molecules
4.	Suspension	(d) Pure substances
5.	Mixture	(e) Made up of atoms



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Exercise Fill In The Blanks

1. A _____ mixture has no distinguishable boundary between its components.



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2. An example of a substance that sublimates is

_____.



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3. Alcohol can be separated from water by



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4. In petroleum refining, the method of separation used is _____



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5. Chromatography is based on the principle of _____



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Exercise Very Short Answers

1. Differentiate between absorption and adsorption.



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2. Define sublimation.



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3. A few drops of 'Dettol' when added to water the mixture turns turbid Why?



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4. Name the apparatus that you will use to separate the components of mixtures

containing two, (i) Miscible liquids, (ii)

Immiscible liquids



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5. Name the components in each of the following mixtures. (i) ice cream (ii) Lemonade (iii) Air (iv) Soil



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Exercise Short Answers

1. Which of the following are pure substances?

Ice, Milk, Iron, Hydrochloric acid, Mercury Brick and Water.



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2. Oxygen is very essential for us to live, It forms 21 % of air by volume. Is it an element of compound?



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3. You have just won a medal made of 22-carat gold. Have you just procured a pure substance or impure substance?



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4. How will you separate a mixture containing saw dust, naphthalene and iron filings?



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5. How are homogenous solution different from heterogeneous solution? Explain with examples.



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Exercise Long Answers

1. Write the differences between elements and compounds and give an example for each.



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2. Explain Tyndall effect and Brownian movement with suitable diagram.

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3. How is a mixture of common salt, oil and water separated? You can use a combination of different methods.

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1. Make models of the molecules of compounds by using match sticks and clay balls as shown below.

Items for identification	Matters	Non matters
Flowers, bee, cloud, rainbow, leaf, fire, baby, torch light, sky, smoke, heat coming from glowing coals, fog, sound coming from a drum, laser beam		



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2. Take some powdered iron filings and mix it with sulphur.

- (i) Divide the mixture into two equal halves.
- (ii) Keep the first half of the mixture as it is, but heat the second half of the mixture.
- (iii) You will get a grey brittle compound



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3. Identify whether the given substance is mixture or compound and justify your answer.

S.No.	Substance	Mixture / Compound
1.	Sand and water	
2.	Sand and iron filings	
3.	Concrete	
4.	Water and oil	
5.	Salad	
6.	Water	
7.	Carbon dioxide	
8.	Cement	
9.	Alcohol	



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4. Take bottles containing sugar, starch and wheat flour.

Add one tea spoon full of each one to a glass of water and stir well. Leave it aside for about ten minutes. What do you observe?



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Additional Question Fill In The Blanks

1. _____ cannot be compressed as there is little space between particles.



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2. _____ around exist in three physical states solid liquid and gas





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3. Elements and compounds are considered to be _____ substances, as they contain only one kind of particles.



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4. An _____ is a homogenous solution of two or more elements



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5. _____ is a colloid, in which both phases are liquids



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6. The fluid that passes through the filter is called _____



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7. The change of liquid into gas even without heating is called _____



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8. The process of turning a liquid mixture into an emulsion is called _____



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Additional Question Match The Following

1.

Latent heat	(a) Separating funnel
Emulsion	(b) Heterogenous mixture
Liquid	(c) Hidden head
Solution	(d) Fractional distillation
Suspension	(e) Homogenous mixture
Miscible Liquids	(f) Colloid
Immiscible liquids	(g) Flows freely



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Additional Question State Which The Following Statements Are True Or False If False Give The Correct Statement

1. Supernatant denotes the heterogenous mixture, lying above a solid residue, after crystallization precipitation, centrifugation or other process.



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2. Liquids cannot be compressed and they have fixed volume.



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3. The intensity of scattered light depends on the type of colloidal solution and the size of the colloidal particles.



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4. In Aerosol the dispersed phase is liquid and the dispersion medium is gas.



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5. When the solid (Solute) dissolves in a liquid (Solvent), it become a solution.



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6. Solids possess very high kinetic energy



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7. Celsius scale is a scale of temperature in which zero represent the boiling point of

water



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Additional Question Answer Very Shortly

1. What is a matter ?



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2. What is dry ice or cardice?



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3. What are the uses of dry ice?



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4. When does the pressure of the gas increase?



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5. Complete the following table:

S.NO.	CELSIUS	KELVIN
1	$90^{\circ}C$	$363K$
2	?	$283K$
3	$63^{\circ}C$?
4	$250^{\circ}C$?
5	?	$303K$



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6. What does the LPG (Liquefied petroleum gas) contain ?



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7. What are pure substances? Give examples.



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8. What are impure substance? Give example.



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9. Classify thhe pure substance on the basis of chemical composition.



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10. Classify the types of mixtures,



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11. Write a few examples for the following colloids.



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12. Name the two phases in separation of the mixtures in chromatography.



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13. What is absorption? Give example



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14. What is adsorption? Give example.



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Additional Question Answer The Following In Detail

1. Explain the factors, which will affect the rate of evaporation, taking examples from our daily life experiences.



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2. Compare boiling and evaporation.



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3. Classify colloids based on physical state of dispersed phase and dispersion medium.



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4. Write the methods of separation for the following:



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5. Write the differences between mixture and compounds.



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