



## **CHEMISTRY**

# **BOOKS - ICSE**

# PURE SUBSTANCES & MIXTURES; SEPARATION OF MIXTURES



**1.** Select homogeneous and heterogeneous mixtures from the following:

Salt solution, petrol and water, sand and charcoal, alcohol and water, air dissolved in water, air, sea water, fruit juices, mist, brass.

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**2.** Define the following with an example for each :

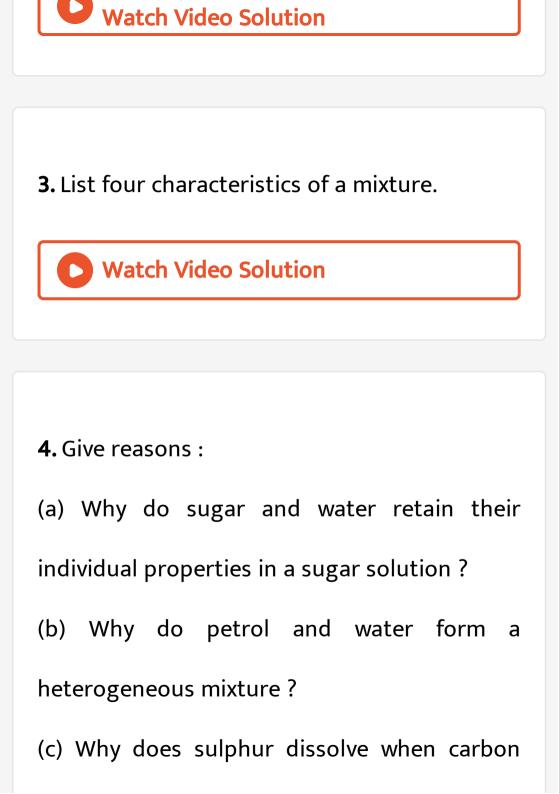
(a) Pure substance (b) Impure substance

(c) Alloy (d) Solution

(e) Heterogeneous mixture (f) Homogeneous

mixture





disulphide is added to a mixture of iron and sulphur but not when it is added to iron sulphide ?

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**5.** Give two examples for each of the following types of mixtures.

A. solid-solid

B. solid-liquid

C. liquid-gas

#### D. gas-gas

#### Answer:

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**6.** Name the components present in the following mixtures :

A. Brass

B. Duralumin

C. Tap water

#### D. Bronze

#### Answer:

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#### 7. State

(a) Three differences between water and air.

(b) Four differences between compounds and

mixtures.





- 1. Define :
- (a) Filtration
- (b) Sublimation
- (c) Evaporation
- (d) Crystallisation

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2. Why do we need pure substances ?



**3.** Give one example for each of the following

types of mixtures.

(a) Solid-solid heterogeneous mixture

(b) Solid-liquid heterogeneous mixture

(c) Solid-liquid homogeneous mixture

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**4.** Name the process by which the components

of following mixtures can be separated.

- (a) Powdered glass and sugar
- (b) Chalk powder and iron filings
- (c) Chaff and grain
- (d) Salt and water
- (e) Wheat and sugar
- (f) Sand and camphor
- (g) Sugar and water



5. Name :

(a) two substances which can sublime

(b) two substances soluble in water

(c) two substances insoluble in water

(d) four substances that can be used as filters.

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6. Give reasons

(a) Sand and saw dust cannot be separated by

hand picking

(b) Magnet is used to separate a mixture of

iron and sulphur.

(c) Alum is used in purification of river water.





#### **Objective Type Questions Fill In The Blanks**

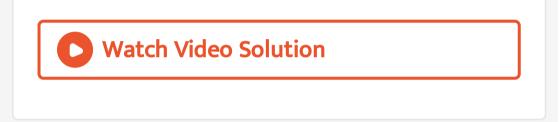
1. The substances that make a mixture are

called its .....or.....or

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2. Method to separate solid dissolved in water.

**3.** Mist is a .....mixture of droplets of water and air.



#### 4. Clay is separated from water by the method

of.....



5. When cereals are washed before cooking.

water is separated from the cereals by.....



6. ..... Is a process to obtain a very pure

form of a solid dissolved in a liquid



7. Ammonium chloride can be separated from

salt by ..... (evaporation/ sublimation)

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8. The solid particles which remain on the filter paper are called and the liquid which passes through it is called.....

**9.** The process of transferring the clear liquid layer above the solid particles which settle at the bottom of the container is known as.....

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10. Method to separate an insoluble solid from

solid-liquid mixture.

1. A pure substance consists of only one kind

of atom or .....molecule.

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2. Common salt is separated from its solution

in water by .....decantation.

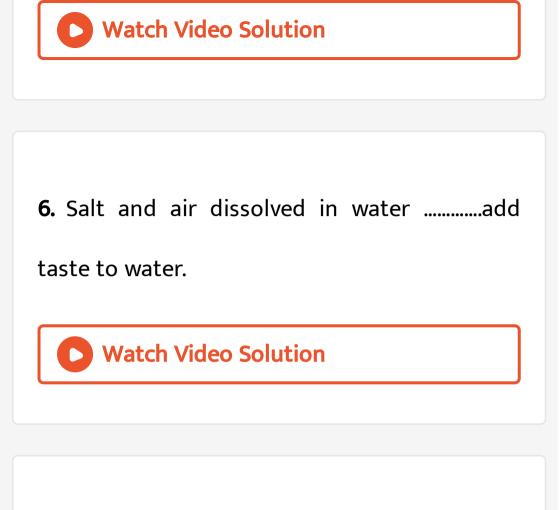
3. Winnowing is a process to remove small

stones from .....grains.



# Gold jewellery is a homogeneous .....mixture of metals. Watch Video Solution

**5.** Air can be separated from ......water by filtration.



7. Steel is an alloy of iron and .....aluminium

**1.** The process of adding a chemical substance to help the suspended solid particles to deposit as sediment faster is called

A. loading

- B. sedimentation
- C. decantation

D. filtration



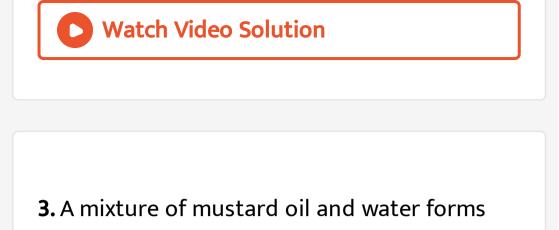


2. Salt is separated from sea water by

A. evaporation

- **B. sublimation**
- C. crystallisation
- D. filtration





- A. a compound
- B. a homogeneous mixture
- C. an alloy
- D. a heterogeneous mixture

Answer:



4. A heterogeneous mixture is

A. made up of only one kind of atom

B. made up of only one kind of molecule

C. made up of different kinds of atoms and

molecules.

D. that looks uniform.

Answer:

5. Example of a homogeneous mixture is

A. distilled water

B. tap water

C. sand and water

D. sawdust and water

Answer:

**6.** A set of mixture is

A. gold, common salt, water, alloy

B. alloy, ink, honey, icecream

C. alloy, mercury, air, sea water

D. milk, duralumin, brass, silver.

Answer:

**7.** A gas dissolved in a liquid can be separated by :

A. filtration

B. boiling

C. using magnet

D. by crystallisation

#### Answer:

8. Copper is not a part of the alloy :

A. brass

B. bronze

C. steel

D. duralumin

**Answer:** 



9. Which is not a mixture ?

A. sugar solution

B. tap water

C. milk

D. distilled water

#### **Answer:**

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**Objective Type Questions Give One Word** 

1. The solid which is left on the filter paper

after filtration.....

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#### 2. The solid particles which separate out

from.....



3. The solid particles that settle at the bottom

of the beaker in a heterogeneous mixture of a

solid and a liquid.....



4. The clear liquid which is poured out after

sedimenatation.....



5. The technique used to separate the light particles from heavy particles using the flow of wind......

