

**Class: IX**

**Subject: chemistry**

**Topic: Elements and Mixtures**

**No. of Questions: 20**

**Duration: 60 Min**

**Maximum Marks: 60**

1. Brass is an example of

1. an alloy
2. a compound
3. a mixture
4. an element

Ans: 1

*An alloy is a material composed of two or more metals or a metal and a nonmetal*

2. A particle may be

1.  an atom
2.  a molecule
3.  an isotope
4.  all of these

Ans: 4

Fact

3. Other than O and C, the main elements of a brick wall include

1.  Si
2.  Ca
3.  Both A and B
4.  None of the Above\

Ans: 3

Bricks consists of Silicon in form of sand and calcium

4. The symbol of Magnesium is

1.  Mg
2.  Mn
3.  Hg
4.  M

Ans: 1

Fact

5. Naturally occurring elements are

1.  82
2.  92
3.  99
4.  above 100 by now

Ans: 2

Fact

6. Which of the following is an element?

1. Water
2. Steam
3. Snow
4. Iron

Ans: 4

An *element* is a substance consisting of atoms which all have the same number of protons - i.e. the same atomic number. *Elements* are chemically the simplest substances and hence cannot be broken down using chemical methods. *Elements* can only be changed into other *elements* using nuclear methods.

7. Which of the following is NOT a pure substance?

1. Salt
2. Soil
3. Iron
4. Gold

Ans: 2

Soil is a mixture

8. Which of the following is a metal?

1. Water
2. Iron
3. Chlorine

4. Ice

Ans: 2

Fact

9. Which of the following is an element but NOT a metal?

1. Oxygen
2. Copper
3. Aluminium
4. Water

Ans: 1

Fact

10. Which of the following does NOT contain any chemical substances?

1. Air
2. Water
3. A wood fire
4. Light

Ans: 4

fact

11. Which of the following substances makes up around one fifth of the air we breathe?

1. Iron
2. Oxygen
3. Chlorophyll
4. Sodium

Ans: 2

Fact

12. Which two elements, when combined, form water?

1. Hydrogen and oxygen
2. Hydrogen and nitrogen
3. Sulfur and oxygen
4. Sodium and oxygen

Ans: 1

Fact

13. What is a chemical compound?

1. A subatomic particle
2. A combination of two protons and two electrons
3. A combination of two or more chemical elements
4. A mixture of two or more substances

Ans: 2

Fact

14. Which of the following is NOT true of matter on the Earth?

1. Matter is always composed of atoms
2. All substances are made of matter
3. All matter contains chemical elements
4. Matter always consists of molecules

Ans: 4

Matter is also made up of mixtures

15. Which element can be found as charcoal, diamond or buckyballs?

1. Hydrogen
2. Carbon
3. Oxygen
4. Silver

Ans: 2

Fact

16. Copper sulfate can be further subdivided into simpler substances by chemical means only. Therefore, it is \_\_\_\_\_.

1. a compound
2. a mixture
3. an element
4. atom

Ans: 1

Copper sulfate is a pure substance made up of two types of elements (atoms) chemically combined in a fixed proportion, and it can be further subdivided into simpler substances by chemical means only. Therefore, it is a compound.

17. Copper sulfate solution can be further subdivided into simpler substances by physical (mechanical) means. Therefore, it is \_\_\_\_\_.

1. a compound
2. an element
3. a mixture
4. an atom

Ans: 3

Copper sulfate solution is an impure substance made up of two types of compounds (copper sulfate and water) mechanically mixed in any proportion, and it can be further subdivided into simpler substances by physical (mechanical) means since its constituents have not undergone a chemical change. Therefore, it is a mixture.

18. Which of the following is an impure substance made up of two or more types of atoms or elements?

1. a compound
2. an element
3. a mixture
4. an atom

Ans: 3

A mixture is defined as an impure substance made up of two or more types of elements (atoms) or compounds or both mechanically mixed in any proportion, and it can be further subdivided into simpler substances by physical (mechanical) means.

19. Which of the following is a mixture?

1. Potassium carbonate
2. Potassium carbonate solution Right!
3. Potassium
4. Sodium

Ans: 1

Potassium carbonate solution is a mixture. Potassium is an element. Potassium carbonate is a compound.

20. Which of the following is a compound?

1. Sodium
2. Sodium sulfide
3. Sodium sulfide solution
4. Potassium

Ans: 2

Fact