



1. Matter is anything that:
  - a) Is visible
  - b) Occupies space and has mass
  - c) Is liquid only
  - d) Changes shape
2. Which of these is a pure substance made of one kind of atom?
  - a) Compound
  - b) Mixture
  - c) Element
  - d) Solution
3. Gold is an example of:
  - a) Compound
  - b) Mixture
  - c) Alloy
  - d) Element
4. Water ( $H_2O$ ) is a:
  - a) Mixture
  - b) Compound
  - c) Solid
  - d) Gas
5. A compound is made by:
  - a) Mixing two gases
  - b) Combining elements chemically
  - c) Melting metals
  - d) Boiling water
6. Which of the following is a mixture?
  - a) Salt
  - b) Air
  - c) Oxygen
  - d) Water
7. Mixtures can be separated by:
  - a) Burning
  - b) Boiling only
  - c) Physical methods
  - d) Chemical reactions
8. The substance  $NaCl$  is:
  - a) Water
  - b) Oxygen



c) Salt  
d) Carbon dioxide

**9.** Elements are found in the:  
a) Periodic table  
b) Air  
c) Soil  
d) Kitchen

**10.** In a mixture:  
a) Substances lose their identity  
b) Substances are chemically joined  
c) Substances keep their properties  
d) Only solids mix

**11.** What type of matter is oxygen?  
a) Mixture  
b) Compound  
c) Element  
d) Alloy

**12.** Which method is used to separate sand from water?  
a) Evaporation  
b) Filtration  
c) Freezing  
d) Boiling

**13.** Salt from salt water is separated using:  
a) Hand picking  
b) Filtration  
c) Evaporation  
d) Magnet

**14.** Iron and sulfur combined physically form a:  
a) Compound  
b) Solution  
c) Mixture  
d) Metal

**15.** Which of the following can be **chemically broken**?  
a) Mixture  
b) Element  
c) Compound  
d) Atom

**16.** What is used to separate large particles from small ones?  
a) Filtration



- b) Hand picking
- c) Sieving
- d) Melting

**17.** Which is true about a compound?

- a) Can be separated by hand
- b) Made by physical methods
- c) Formed by chemical reaction
- d) Has variable composition

**18.** What is air made up of?

- a) One gas
- b) Metals
- c) Mixture of gases
- d) Pure oxygen

**19.** Salt in sand can be separated using:

- a) Distillation
- b) Filtration
- c) Sieving
- d) Evaporation

**20.** Which property is **common to all matter**?

- a) Is visible
- b) Has color
- c) Occupies space
- d) Made of water

#### Assertion-Reason Questions (1 mark each)

Options:

- A. Both A and R are true, and R explains A
- B. Both A and R are true, but R is not the correct explanation of A
- C. A is true, R is false
- D. A is false, R is true

**21. A:** Mixtures can be separated by simple physical means.

**R:** The substances in mixtures are not chemically bonded.

**22. A:** Salt is an element.

**R:** It is made of sodium and chlorine.

**23. A:** Compounds retain the properties of their elements.

**R:** Compounds are physical combinations of substances.

**24. A:** Gold is found on the periodic table.

**R:** It is a compound formed of multiple elements.



25. **A:** Air is a mixture.  
**R:** It contains gases like nitrogen, oxygen, and carbon dioxide.

### Case Study-Based Questions (Each with 4 sub-questions)

#### Case Study 1: The Salt-Water Mixture

Priya added salt to water and stirred it. Later, she heated the mixture and observed salt left behind in the pan.

1. What kind of matter was formed by mixing salt and water?
2. What method did Priya use to separate the salt?
3. Is the mixture a compound or a mixture?
4. Why did salt remain after heating?

#### Case Study 2: Metals in a Tray

Arjun saw a tray with iron nails and sand. He separated the nails using a magnet and then used a sieve for the sand.

1. What kind of matter was in the tray?
2. What physical property helped in using the magnet?
3. What method did he use after magnet?
4. Can this be considered a chemical change?