

# PYQs on Elements, Compounds, Molecular Formula and Mixtures



Match List I with List II and select the correct answer using the code given below the Lists:

List I List II (Compound) (Nature)

- A. Sodium hydroxide 1. Strong acid
- B. Calcium oxide 2. Alkali
- C. Acetic acid 3. Weak acid
- D. Hydrochloric acid 4. Base

#### Code:

A B C D

(a) 2 3 4 1

(b) 2 4 3 1

(c) 1 4 3 2

(d) 1 3 4 2



Which one of the following elements will not react with dilute HCl to produce H<sub>2</sub>?

- (a) Hg
- (b) Al
- (c) Mg
- (d) Fe



#### Which one of the following is water gas?

- (a) Mixture of carbon monoxide and hydrogen
- (b) Mixture of carbon monoxide and nitrogen
- (c) Mixture of carbon dioxide and water vapour
- (d) Mixture of carbon monoxide and water vapour



4. There are six electrons, six protons and six neutrons in an atom of an element. What is the atomic number of the element?

(a) 6

(b) 12

(c) 18

(d) 24

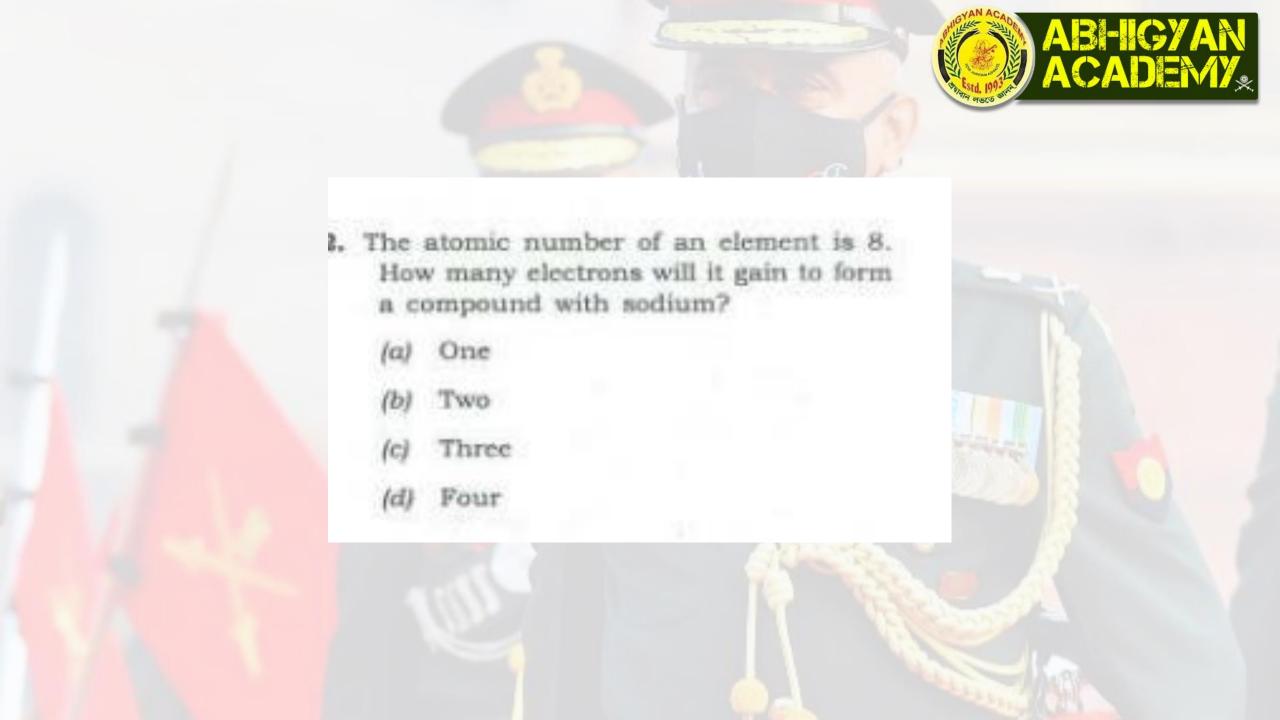


Match List I with List II and select the correct answer using the code given below the Lists:

List I (Element)	List II (Highest Valency)		
A. Sulfur	1. Five		
B. Phosphorous	2. Six		
C. Lead	3. Two		
D. Silver	4. Four		

### Code:

	A	В	C	D	
(a)	2	4	1	3	
(b)	2	1	4	3	
(c)	3	1	4	2	
(d)	3	4	1	2	





- . Which one of the following is a heterogeneous mixture?
  - (a) Hydrochloric acid
  - (b) Vinegar
  - (c) Milk
  - (d) Soda water



What is the formula mass of anhydrous sodium carbonate? (Given that the atomic masses of sodium, carbon and oxygen are 23 u, 12 u and 16 u respectively)

- (a) 286 u
- (b) 106 u
- (c) 83 u
- (d) 53 u

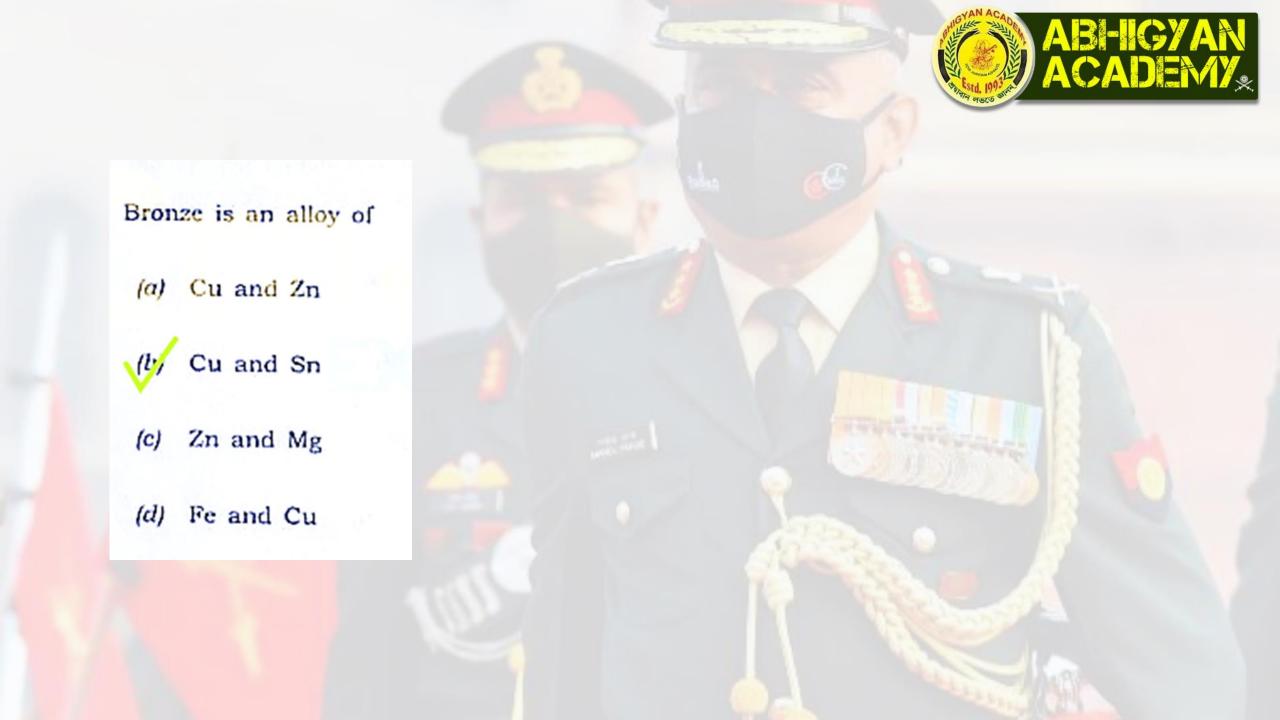


Which compound, when dissolved in water, conducts electricity and forms a basic solution?

- (a) HCl
- (b) CH<sub>3</sub>COOH
- (c) CH<sub>3</sub>OH
- (d) NaOH



- . Chalk and marble are different forms of
  - (a) Calcium hydrogen carbonate
  - (b) Calcium carbonate
  - (c) Calcium acetate
  - (d) Sodium carbonate





Which one of the following does *not* represent the salt, Calcium carbonate?

- (a) Lime water
- (b) Limestone
- (c) Chalk
- (d) Marble



Which one of the following substances is **not** a mixture?

- (a) Tin
- (b) Sea water
- (c) Soil
- (d) Air



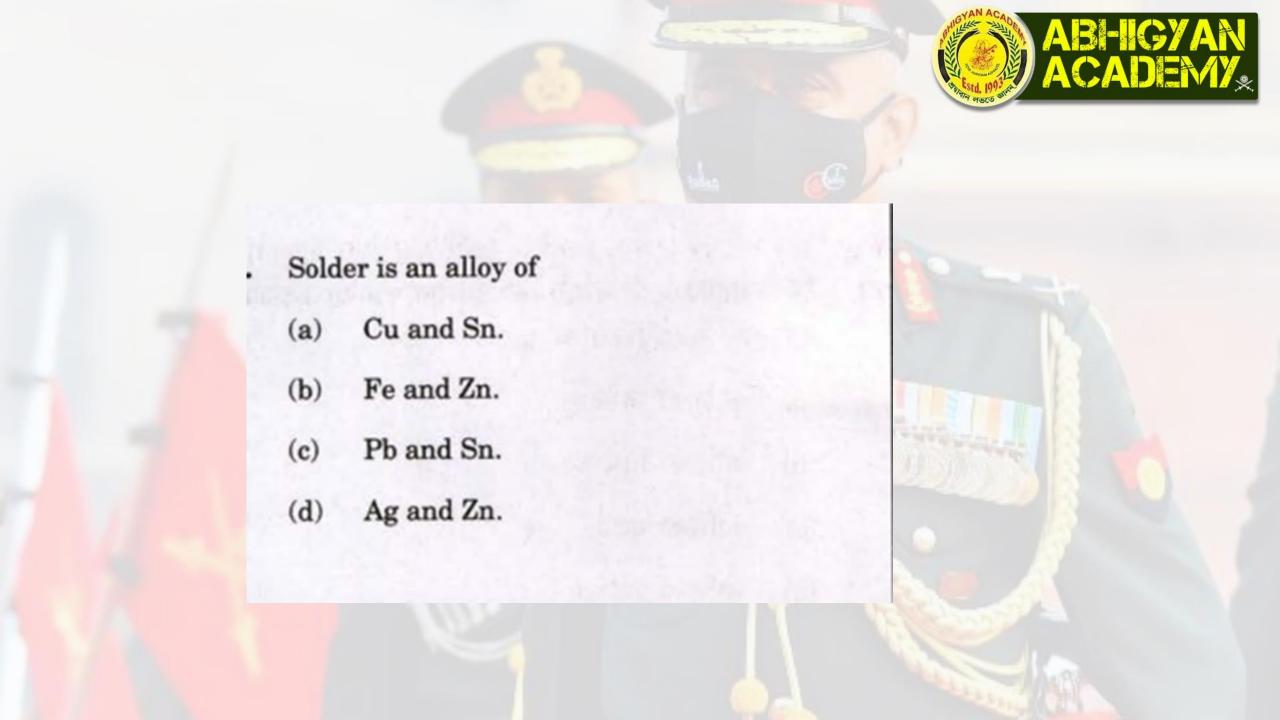
Which one of the following is **not** a monatomic element?

- (a) Copper
- (b) Helium
- (c) Iodine
- (d) Barium



## Water gas is a mixture of:

- (a) CO<sub>2</sub> and H<sub>2</sub>
- (b) CO and H<sub>2</sub>
- (c) CO2 and H2O
- (d) CO and H2O



. Which one of the following is the chemical formula of Washing Soda?

- (a) NaHCO<sub>3</sub>
- (b) Na<sub>2</sub>CO<sub>3</sub>·10H<sub>2</sub>O
  - (c) Na<sub>2</sub>CO<sub>3</sub>·5H<sub>2</sub>O

(d) NaOH

