

## OBJECTIVE TYPE QUESTIONS

1. Fill in the blanks :

- (a) atomicity refers to the number of atoms in the molecule of an element.
- (b) The most abundant element in the earth's crust is oxygen.
- (c) A metal which is a liquid at room temperature is mercury.
- (d) The most abundant element in the atmosphere is nitrogen.
- (e) A metal which is a poor conductor of electricity is tungsten.
- (f) A diatomic gaseous element is oxygen.
- (g) A liquid non-metal is Bromine.

2. Match the columns :

- | Column A        | Column B                       |
|-----------------|--------------------------------|
| (a) Metals      | (i) Non-reactive               |
| (b) Molecules   | (ii) Brittle                   |
| (c) Non-metals  | (iii) Lustrous                 |
| (d) Noble gases | (iv) Smallest unit of compound |
- (Note: Lines in the image connect (a) to (ii), (b) to (iv), (c) to (iii), and (d) to (i).)*

3. Indicate whether the following statements are *true* or *false*.

- (a) A compound is made up of just one kind of atom. F.....
- (b) Metals reflect light and are good conductors of electricity. T.....
- (c) Metals can be polished. ~~T~~.....
- (d) Elements are made up of compounds. F.....
- (e) All elements are artificially prepared. ~~F~~.....
- (f) Molecules can exist independently. T.....
- (g) Molecules combine to form atoms. F.....
- (h) Noble gases are highly reactive. F.....
- (i) Ozone is a triatomic molecule. T.....

### MULTIPLE CHOICE QUESTIONS

Tick (✓) the correct alternative from the choice given for the following statements :

1. All pure substances have
- (a) the same physical state
- (b) the same colour
- (c) the same composition
- ✓ (d) a definite set of properties

2. Sugar is a compound which consists of the elements  
(a) carbon and hydrogen  
(b) hydrogen and oxygen  
 (c) carbon, hydrogen and oxygen  
(d) hydrogen, carbon and sulphur
3. Atoms of different kinds combine to form molecules of  
(a) an element       (b) a compound  
(c) a mixture      (d) all of the above
4. Sulphur and carbon are  
(a) metals       (b) non-metals  
(c) metalloids      (d) noble gases
5. Gold is used to make jewellery because  
(a) it is dull  
 (b) lustrous and attractive  
(c) highly reactive  
(d) very cheap
6. The most abundant elements in the universe are  
(a) neon and argon  
 (b) hydrogen and helium  
(c) aluminium and copper  
(d) oxygen and nitrogen
7. The compound used as common salt is  
 (a) sodium chloride  
(b) calcium chloride  
(c) sodium oxide  
(d) hydrogen chloride
8. Brass and bronze are  
(a) elements       (b) mixtures  
(c) compounds      (d) all of the above
9. Sand is a compound of  
(a) silicon and nitrogen  
 (b) silicon and oxygen  
(c) oxygen and sulphur  
(d) none of the above
10. From the list given below select the correct substance which is most suitable to the statements given :  
[oxygen, diamond, zinc, graphite, gold]  
(a) A metal which is brittle.  
 (b) A non-metal which is a good conductor of electricity.  
(c) The hardest naturally occurring substance.  
(d) The most ductile metal.  
(e) A gaseous non-metal.

③ pure substances: "A substance of a definite composition which has consistent properties through is called a pure substance".

Types of pure substances: pure  
Substances are of two types  
are :- (i) Elements  
(ii) compounds

(5) (a) Metals - Iron, Silver, gold.

(b) Non-metals - Carbon, sulphur, oxygen.

(c) Metalloids - Antimony, Silicon, Boron

(d) Noble gases - Helium, Argon, Neon

(6) The elements which form

water are (i) Hydrogen and oxygen.

Justification: water has entirely

different properties (i.e. is a liquid

extinguishes fire) from the elements it is made up of i.e.  
Hydrogen a gas catches fire  
oxygen a gas supporter of combustion.

(i) Energy is needed to form water on combining  $O_2$  with  $H_2$ .

(ii) We can not separate the constituents of water by simple physical means.

(7) \* metals :-

(i) Metals are ductile i.e. can be

drawn into wires.

(ii) Metals are malleable i.e. can be beaten to form sheets.

(iii) They are sonorous.

\* Non-metals

(i) Non-metals are mostly soft solids cannot be drawn into wires.

(ii) They are mostly gases and are not malleable.

(iii) They do not produce ~~sound~~ sound when struck.