

## Exercise 11

Q1 a) i) Diamond

2) Graphite

3) Coal

b) Diamond is used as gems.

c) i) Copper

2) Aluminium as these are good conductors of electricity.

d) i) Gold

ii) Silver as these are shining, lustrous and ductile.

e) Plastic is used as insulator as it is bad conductor of electricity.

2) a) Iron: To make machines tools and building material.

b) Brass: To make water taps and utensils.

c) Coal: Coal is used as fuel also used in thermal power plant to produce electricity.

3) a) Steel is good conductor of heat to cook food, pan is made of steel whereas wood is ~~is~~ insulator of heat and to hold, handle is made up of wood.

b) Graphite leaves mark on the paper and makes it black.

c) Argon is inert gas and protects the element of bulb from oxidation and burning. Hence increases bulb's life.

4a) Copper and aluminium are good conductors of heat and electricity. They can be drawn into wires and beaten into sheets. Therefore, they can be used to make electricity wires.

b) Metals are ductile, i.e., they can be drawn ~~or~~<sup>or</sup> stretched into thin wires. They are ~~is~~ malleable, i.e., they can be beaten into thin sheets.

## 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

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

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

### 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. **Zinc**
  - (b) A non-metal which is a good conductor of electricity. **Graphite**
  - (c) The hardest naturally occurring substance. **Diamond**
  - (d) The most ductile metal. **gold**
  - (e) A gaseous non-metal. **oxygen**