GRADE VIII | SCHOOL | CHEMISTRY

TIME- 2 HOURS | ASSESSMENT - I | M.M. 80

Answers to this Paper must be written on the paper provided separately. You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this Paper is the time allowed for writing the answers.

Section A is compulsory. Attempt any four questions from Section B. The intended marks for questions or parts of questions are given in brackets.

## Section A (40 marks)

(Attempt all questions from this section)

1. Tick the correct answer:

1. The formula for methane is:

(a) $NH_3$

(b) $CO_2$

(c) $CH_4$

(d) $CH_2$

2. The mass of an electron is:

(a) 1

(b) 1/1840

(c) Negligible

(d) None of these

3. Which of the following is not a sublimable compound?

(a) Iodine

(b) Graphite

(c) Camphor

(d) Ammonium chloride

4. Which of the following is a chemical property?

(a) Density

(b) Solubility

(c) Colour

(d) Reaction with acid

5. The attractive forces between molecules of different kind are called

(a) Adhesive forces

(b) Cohesive forces

(c) Collision force

(d) Attractive forces

6. The short form of an element is known as:

(a) Radical

(b) Symbol

(c) Valency

(d) Product

7. The solvent for sulphur is

(a) Carbon tetrachloride

(b) Carbon dioxide

(c) Carbon disulphide

(d) Hydrogen sulphide

8. The catalyst used to convert $SO_2$ to $SO_3$

(a) Iron

(b) Platinum

(c) Abestos

(d) Vanadium pentaoxide

9. The nucleus of an atom is:

(a) Neutral

(b) Positively charged

(c) Negatively charged

(d) None of the above

10. Which of the following cannot be compressed?

(a) Soild state

(b) Liquid state

(c) Gaseous state

(d) None of the above

II. Fill in the blanks:

1. The molecules in a gas have high.....

2. The composition of a substance.....during a chemical change.

3. .....is a mixture of copper and zinc.

4. The number of.....in an atom is called atomic number.

5. The formation of.....is indicated by downward arrow.

III. Write true or false for each statement, rewrite the false statements correctly:

1. Valency of a metal is the number of electrons gained by an atom.
2. Protons have $1.602 \times 10^{-19}$ C of positive units.
3. Distilled water decomposes on passing electric current.
4. Noble gases mostly exist as monoatomic molecules.
5. Solids on cooling change into liquid state.

IV. Match the following:

| | |
|---|---|
| 1. Increase or decrease the rate of reaction | a. Mixture |
| 2. Phosphate | b. $ZnO_2$ |
| 3. Atomic number | c. $PO_4$ |
| 4. Zincate | d. Catalyst |
| 5. Bronze | e. Number of protons |

V. Answer in one word:

1. A natural substance capable of existing in all the three states.
2. The catalyst used to decompose potassium chlorate.
3. Solid left behind on the filter paper.
4. The element which does not possess any neutron.
5. The elements having valency of four

VI. Give one example of:

1. Compound radicals
2. Distillation
3. Trivalent elements
4. Colloidal solution
5. Chemical change

VII. Complete the table:

| Particle | Mass no. | Atomic no. | Protons | Neutrons | Electrons |
|---|---|---|---|---|---|
| Cl | 35 | | | | 17 |
| Mg | | | 12 | 12 | 12 |

Section B (40 marks)

(Attempt any five questions)

VIII. 1) What are cohesive forces?

2) State kinetic theory of matter.

IX. 1) Write the formula of the following compounds by criss cross method:
(i) Lead nitrate (ii) Aluminium oxide (iii) Ferrous sulphate

2) Define: (i) chemical formula (ii) radical

X. 1) What is electronic configuration?

2) With the help of suitable diagram, explain scattering experiment of Rutherford.

XI. 1) Prove that water is a compound,

2) Explain distillation with the help of neat and labelled diagram. Also describe in detail how salt can be separated from sea water.

XII. 1) Give complete equation for formation of ammonia.

2) Explain the concept of catalyst and promoter.

XIII. 1) Distinguish between exothermic and endothermic reactions:

2) What are the basic assumptions of Dalton's atomic theory?

XIV. 1) What is latent heat of vaporisation?

2) Balance the following reactions:

(i) $Al + H_2SO_4 \rightarrow Al_2(SO_4)_3 + H_2$

(ii) $Zns + O_2 \rightarrow ZnO + SO_2$

(iii) $H_2S + SO_2 \rightarrow S + H_2O$

(iv) $P + O_2 \rightarrow P_2O_5$

(v) $Pb_3O_4 \rightarrow PbO + O_2$