

Note: Section I is compulsory- Attempt any TWO (2) questions from Section II.

SECTION - I

Q.2 Write short answers to any FIVE (5) questions: 10

- i How many moles are in 9 grams of carbon?
- ii What is meant by diatomic molecule and triatomic molecule?
- iii How many electrons can be accommodated in 'K' and 'L' shells? Give example.
- iv What is meant by "Plum Pudding" theory?
- v What is meant by groups and periods in a periodic table?
- vi What is the contribution of Dobereiner towards classification of elements?
- vii Describe the trend of electronegativity in a period and a group.
- viii What is meant by atomic radius? Write down its unit.

Q.3 Write short answers to any FIVE (5) questions: 10

- i Why chlorine can accept only one electron?
- ii Why HCl has dipole - dipole forces of attraction?

iii Write down the ways by which an atom can accommodate eight (8) electrons in its valence shell.

- iv Why are the densities of gases lower than liquid?
- v In which form does sulphur exist at 100°C ?
- vi Why do we stir paints thoroughly before using?
- vii Why solutions do not show tyndall effect?
- viii Define saturated solution.

Q.4 Write short answers to any FIVE (5) questions: 10

- i Explain electroplating of zinc with the help of an equation.
- ii Write down two uses of silver.
- iii Calculate the oxidation number of nitrogen in HNO_3 .
- iv What is the basic function of salt bridge?
- v Write down any two chemical properties of non-metals.
- vi Write down names of any four noble metals.
- vii Write down chemical reaction of sodium hydroxide with any one halogen.
- viii What is meant by electropositivity of metals?

SECTION-II

Note: Attempt any TWO (2) questions.

Q.5(a) Write down any five differences between compound and mixture. 5

(b) Write down any four properties of cathode rays. 4

Q.6(a) Define ionic bond. Write down properties of ionic compounds. 5

(b) What is meant by diffusion? Describe three factors which influence diffusion in liquids. 4

Q.7(a) Define electrolysis. Write down electrolysis of water in detail. 5

(b) What is meant by solubility? Analyse the effects of temperature on solubility. 5