

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 write down the names of two elements which are found in liquid form.
- ii Distinguish between atom and molecule.
- iii Write down the electronic configuration of C^{-1} .
- iv Complete the following equation:
$${}^1_6C r^2$$
- v How elements are arranged in periods?
- vi How did Newlands arrange the elements?
- vii What is meant by periodic function?

viii Define ionization energy and write down its unit.

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

- i What is meant by duplet rule?
- ii What is meant by non-polar covalent bond?
- iii What is meant by van der waals forces?
- iv Differentiate between vapour pressure and condensation?
- v Define boiling point.
- vi Define colloidal solution. Also give an example.
- vii What is meant by mass percentage?
- viii Write down names of any two factors that affect the solubility of solutes.

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

- i Define oxidation and reduction.
- ii What is oxidation number of nitrogen in HNO_3 , $H = +1$ and $O = -2$.
- iii How is tin coating done?
- iv What is electroplating?
- v Why does electro positive character of metals decrease in period?
- vi How oxygen reacts with group 2 elements?
- vii Write down two uses of sodium.
- viii Write down two physical properties of non-metals.

SECTION-II

Note: Attempt any TWO (2) questions.

25(a) Define molecule. Explain four types of molecules. 5

b) Describes Rutherford's gold foil experiment with diagram. 4

26(a) Define ionic compounds and write their three properties. 5

b) State Boyle's law and also derive its equation. 4

27(a) Explain electroplating of silver with the help of diagram. 5

b) Write down four properties of suspension. 4