

PART - I**Q.2** Write short answers to any Five (5) questions: 10

- i Define Avogadro's Number.
- ii What is meant by mole?
- iii Differentiate between shell and subshell.
- iv Write electronic configuration of argon (Ar=18)
- v Write the trend of shielding effect in period and group.
- vi Define electronegativity.
- vii Why atomic number is a more fundamental property than atomic mass?
- viii Write names of elements of first period.

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

- i Why do atoms react?
- ii Define chemical bond.
- iii Write name of different types of chemical bond.
- iv What is diffusion? Explain with an example.
- v Define standard atmospheric pressure. What are units?

- vi What is difference between dilute solution and concentrated solution?

- vii Define unsaturated solution.

- viii Give an example for "Gas in Solid" solution.

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

- i Write difference between spontaneous and non-spontaneous reactions.
- ii Define non-electrolytes and give example.
- iii Define corrosion.
- iv What do you mean by galvanizing? Write its advantages.
- v Write two physical properties of metals.
- vi What is the trend of electropositivity in group?
- vii Why platinum is used by jewellery making?
- viii Write reaction of fluorine with water.

PART - II**Note:** Attempt any TWO questions.**Q.5(a)** Calculate the number of moles and number of molecules present in 6 grams of water.**(b)** Write any two results of Rutherford's experiment and two defects of Rutherford's atomic model.**Q.6(a)** What is an ionic bond? Discuss the formation of ionic bond between sodium and chlorine atom.**(b)** Differentiate between crystalline and amorphous cells.**Q.7(a)** What is galvanic cell? Write four differences between electrolytic and galvanic cell.**(b)** Define solubility. Describe effect of temperature on solubility.