

(Group-II)

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

- i Define substance and mixture.
- ii Write down chemical formula of sugar and silicon dioxide.
- iii Define atomic mass unit. Write down its value in grams.
- iv Write down the electronic configuration of ${}_{18}\text{Ar}$.
- v Define atomic radius.
- vi When does electron emit or absorb energy?
- vii Define periodic law.
- viii Write down the trend of electron affinity in periods.

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

- i Define covalent bond.
- ii What is relationship between electronegativity and polarity?
- iii What is double covalent bond? Give an example.
- iv State Boyle's law.
- v Why is evaporation a continuous process?
- vi Define dilute solution and concentrated solution.
- vii Define saturated solution.
- viii What is molarity?

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

- i Define reduction.
- ii What is oxidation number? Give an example.
- iii What are weak electrolytes? Give an example.
- iv What is rusting of iron? Write down its important condition.
- v Write down any four names of very reactive metals.
- vi Write down any two uses of platinum.
- vii Write down any two chemical properties of non-metals.
- viii Write down balanced chemical equation showing chemical reaction of fluorine with water.

PART - II

Note: Attempt any Two questions.

5. (a) Differentiate between Rutherford's and Bohr's atomic theory. (4)

(b) What is meant by Physical and chemical properties of matter? Explain with examples. (5)

6. (a) Define and explain coordinate covalent bond with examples. (4)

(b) What is vapour pressure? On which factors vapour pressure does depend upon? (5)

7. (a) Describe electroplating of chromium. (4)

(b) Calculate the molarity of a solution which is prepared by dissolving 28.4 g of Na_2SO_4 in 400cm^3 of solution: (5)