

Roll No.(in Figures): ..... (in Words): .....

Maximum Marks: 48

**(SUBJECTIVE TYPE)**

Time Allowed :1.45 Hours

### PART - I

**Q2. Write short answers to any FIVE (5) questions:** (5×2=10)

- (i) Give the scope of biochemistry.
- (ii) Define empirical formula with an example.
- (iii) Give four characteristics of cathode rays.
- (iv) For what purpose U-235 is used?
- (v) Give two properties of positive rays.
- (vi) Give the trend of ionization energy in a period.
- (vii) State Mendeleev's periodic law.
- (viii) Define effective nuclear charge.

**Q3. Write short answers to any FIVE (5) questions:** (5×2=10)

- (i) Why has water polar covalent bond?
- (ii) What is a triple covalent bond? Give an example.
- (iii) What is Epoxy? Also write its use.
- (iv) Why the ionic compounds have high melting and boiling points?
- (v) Why the rate of diffusion of gases is rapid than that of liquids?
- (vi) What do you mean by pascal? How many Pascals are equal to 1 atm.
- (vii) Convert - 30°C to Kelvin.
- (viii) Why drops of rain fall downward in the air?

**Q4. Write short answers to any FIVE (5) questions:** (5×2=10)

- (i) What is the difference between solution and aqueous solution?
- (ii) What is tyndall effect?
- (iii) Define oxidizing agent and give example.
- (iv) Define electrochemical cell and give its types.
- (v) What is corrosion? Give example.
- (vi) What is the trend of electropositivity in a period?
- (vii) Write down two uses of magnesium.
- (viii) Why Nitrogen is necessary for safety of life on earth?

### PART - II

**Note: Attempt any TWO questions.** (9×2=18)

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| Q5. (a) How chemical formula is written?   | 5 |
| (b) Write four properties of canal rays.   | 4 |
| Q6. (a) State the covalent bond? Explain types of covalent bond by giving one example for each | 5 |
| (b) Describe factors on which diffusion of liquid depends.                                     | 4 |
| Q7. (a) Give five characteristics of suspension.   | 5 |
| (b) Describe any four rules for assigning oxidation state.                                     | 4 |