ADITYA DEGREE COLLEGES: AU REGION

IV SEMESTER – MID – I – EXAMINATIONS

Date: 10-02-2025 **Course: B.Sc. (Chemistry Minor)** **Max. Marks: 60**
Time: 3 Hours

Subject: Physical Chemistry - II

SECTION - A

Answer any FIVE from the following questions: 5 X4 = 20 M

1. **Explain the postulates of kinetic molecular theory of gasses.**
2. **Explain the Andrew's isothermals of carbon dioxide.**
3. **Explain the Joule Thomson effect.**
4. **Explain the Application of liquid crystals as LCD devices.**
5. **Explain the physical properties of liquids.**
6. **Explain the qualitative discussion of structure of water.**
7. **Explain the law of corresponding states.**
8. **Explain the continuity of states.**

SECTION - A

Answer all the following questions: 4 X10 = 40 M

9. a) Derive the vanderwall's equation of state. (or)

b) Define co-efficient of viscosity? Explain the determination of viscocity?

10. a) Define critical phenomenon? Explain the relationship between critical constants and vanderwaal's constants. (or)

b) Explain the Temperature of viscosity of liquids and comparision with that of gases effect of addition of various solutes on viscocity.

11. a) Define Liquid crystals? Classification of liquid crystals and difference between liquid crystals and solid/liquid. (or)

b) Define vapor pressure? Explain the determination of vapour pressure.

12. a) Explain the deduction of gas laws from kinetic gas equation. (or)

b) Define surface tension? Factors affect the surface tension and determination of surface tension.