



ADITYA DEGREE COLLEGES: AU REGION

(Affiliated to Andhra University)

IV SEM, MID-I EXAMINATIONS, FEB 2025

Dt: 5-2-2025

Course: B.Sc. Chemistry (Hons.)

Max. Mks: 60;

Time: 3 Hrs

PHYSICAL CHEMISTRY-II : PAPER-9 (MAJOR)

SECTION – A

Answer any five questions

5 x 4= 20 M

1. Postulates of kinetic theory of gases
2. Law of corresponding states
3. Liquefaction of gases by Linde method
4. Define vapour pressure? How does vapour pressure depends upon temperature?
5. Write Mesomorphic state?
6. Write Qualitative discussion of structure of water.
7. Write critical phenomenon?
8. Difference between liquid crystals and solids

SECTION – B

Answer all the questions

4 x 10= 40 M

9. (a) Deduce the gas laws from Kinetic gas equation?
(or)
(b) Write the relation between Critical constant and Vanderwal's constants?
10. (a) What is Viscosity? Write the factors affecting Viscosity?
(or)
(b) Write the classification of liquid crystals and applications of liquid crystals ?
11. (a) Derive Vanderwal's equation of state for gases?
(or)
(b) Write a note on Andrew isotherm of carbon dioxide?
12. a) Write a note on Isoteniscope method
(or)
b) What is surface tension? Write the factors affecting surface tension?