B.Sc. DEGREE EXAMINATION,APRIL 2019
I Year I Semester
General Chemistry- II

Time : 3 Hours **Max.marks :60**

Section A $(10 \times 1 = 10)$ Marks

Answer any **TEN** questions

1. What is viscosity?
2. Define thermal expansion
3. Give the effect of temperature on surface tension.
4. What is heat of vaporization?
5. What are liquid crystals?
6. Define hybridisation.
7. What do you mean by inductive effect?
8. Define Carbanion.
9. What is Wurtz reaction?
10. Calculate the strain in cyclopropane.
11. What is homolytic cleavage?
12. State Boyles law

Section B $(5 \times 4 = 20)$ Marks

Answer any **FIVE** questions

13. Explain Maxwell distribution of molecular velocities.
14. State any two methods of preparation of alkenes.
15. Derive Vanderwaals equation.
16. How is surface tension determined by capillary rise method?
17. Discuss the classification and applications of liquid crystals.
18. Explain the geometry and hybridization of methane.
19. Discuss Dickmans ring closure reaction.

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Derive gas laws from kinetic theory of gases.
21. How is viscosity determined by Oswald viscometer.
22. Write note on resonance effect and steric effect.
23. Discuss the production and stability of free radicals.
24. Explain the salient features of Bayers strain theory.

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