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

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

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

Answer any **TEN** questions

1. State Hoffman's rule
2. How is isoprene prepared?
3. Give the product formed in the ozonolysis of acetylene.
4. What is hydroboration?
5. State Zeroth law of thermodynamics.
6. Define inversion temperature.
7. What do you mean by bond dissociation energy?
8. Define heat of formation.
9. Distinguish accuracy and precision.
10. What are significant figures?
11. What is the product formed when ethylene undergoes hydroxylation?
12. State Joules law.

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

Answer any **FIVE** questions

13. With suitable equation explain Markowinikoff's rule.
14. State any two methods of preparation of alkenes.
15. Derive the relationship between Cp and Cv.
16. Discuss the variation of enthalpy of reaction with temperature.
17. How precision is expressed using coefficient of variation?
18. Explain the heat of fusion and heat of solution.
19. Differentiate isothermal and adiabatic process.

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

Answer any **THREE** questions

20. Discuss any five addition reactions of alkenes.
21. How are alkynes prepared ? Discuss the commercial importance of alkynes.
22. Derive P-V, P-T, and T-V relation for reversible process.
23. Explain with suitable example how bond energy is calculated from thermo chemical data.
24. How can you minimize errors? Explain.

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