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 the significance of ψ and ψ^*?
2. State Aufbau's principle and give brief explanation.
3. Define electron affinity.
4. State modern periodic law.
5. How will you prepare alkanes using wurtz reaction?
6. What is bayer's strain?
7. Write the significance of Madelung constant.
8. Define space lattice.
9. Distinguish protic and aprotic solvents.
10. What are soft acid soft bases give examples?
11. What is Zeeman Effect?
12. Draw the unit cell structures for simple cubic, body centered cubic and face centered cubic.

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

Answer any **FIVE** questions

13. Write briefly about Compton effect?
14. Explain the characteristics of d block elements?
15. Illustrate the preparation of cyclo pentane using Dieckmann's ring closure reaction.
16. Discuss the structure of Sodium chloride.
17. Describe common ion effect with suitable example.
18. Explain Mullikan and Allred Rochow scales of electron negativity?
19. Discuss the Bohrs theory of hydrogen atom.

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

Answer any **THREE** questions

20. Describe various quantum numbers.
21. Explain the characteristics of f block elements?
22. Illustrate with suitable examples the types of substitution reactions.
23. Discuss in detail the imperfection in crystals.
24. Write about the principle and applications of common ion effect.

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