B.SC. DEGREE EXAMINATION, APRIL 2018
I YEAR - I SEMESTER
Major Paper II-GENERAL CHEMISTRY- II

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

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

Answer any **TEN** questions

1. What is Compton effect?

2. State Aufbaue principle.

3. Define atomic radii.

4. What is variable valency?

5. Write down Wurtz reaction.

6. Give two examples for cyclo alkanes.

7. Find the Miller indices of the plane having the intercepts 1,2 and 3 .

8. What is shotkey defect?

9. Give an example for protic and aprotic solvents.

10. What is HSAB?

11. Define anisotropy.

12. What is screening effect?

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

Answer any **FIVE** questions

13. Explain Bohrs model of atom.

14. State Slater rules and calculate the screening constant of 2s electron of F atom.

15. Discuss the variation of electronegativity with partial charge and hybridization.

16. Discuss the mechanism of sulphonation of benzene

17. With neat sketch explain the structure of NaCl.

P.T.O.

18. Discuss the application of solubility product in qualitative analysis.

19. Explain Alled Rachows electronegativity scale.

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

Answer any **THREE** questions

20. Write note on a) black body radiation b) Hund s rule c) photoelectric effect.

21. Discuss the factors affecting ionization potential and its applications.

22. A. How are cyclo alkanes prepared by Dieckmans ring closuremethod. B. Write a brief account of Bayers strain theory.

23. Explain a. the laws of rational indices b. Frenkel defects

24. Discuss the postulates and evidences of Arrhenius theory