

**B.Sc. DEGREE EXAMINATION, APRIL 2020**  
**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. State Compton Effect.
2. What do you mean by effective nuclear charge?
3. Define atomic radius
4. List out the various scales of electro negativity
5. Give the reactant and product of Wurtz reaction..
6. Calculate the strain in cyclopropane.
7. Find the Miller indices of the plane having intercepts (123)
8. What is shot key defect?
9. Give two examples for Lewis acids.
10. Name any two non – aqueous solvents.
11. List out the defects in crystals.
12. Give the chemical equation for Dickman's ring closure reaction..

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

Answer any **FIVE** questions

13. Explain Bohr's model of atom..
14. Discuss the factors affecting ionization potential.
15. Write an account of Corey – House method.
16. Distinguish crystalline solid from amorphous one.
17. With neat sketch explain the structure of NaCl.
18. Ammonia as non aqueous solvent – Substantiate .
19. State and explain Hund's rule

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

Answer any **THREE** questions

20. Discuss the shapes of s,p,d and f - orbitals with neat sketch.
21. Write a brief account of special features of Long form periodic table
22. Discuss the general preparation and properties of cyclo alkanes.
23. a. Explain the laws of crystallography b. Derive Bragg ' s equation
24. Discuss the applications of solubility product in qualitative analysis.

**B.Sc. DEGREE EXAMINATION, APRIL 2020**  
**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. State Compton Effect.
2. What do you mean by effective nuclear charge?
3. Define atomic radius
4. List out the various scales of electro negativity
5. Give the reactant and product of Wurtz reaction..
6. Calculate the strain in cyclopropane.
7. Find the Miller indices of the plane having intercepts (123)
8. What is shot key defect?
9. Give two examples for Lewis acids.
10. Name any two non – aqueous solvents.
11. List out the defects in crystals.
12. Give the chemical equation for Dickman's ring closure reaction..

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

Answer any **FIVE** questions

13. Explain Bohr's model of atom..
14. Discuss the factors affecting ionization potential.
15. Write an account of Corey – House method.
16. Distinguish crystalline solid from amorphous one.
17. With neat sketch explain the structure of NaCl.
18. Ammonia as non aqueous solvent – Substantiate .
19. State and explain Hund's rule

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

Answer any **THREE** questions

20. Discuss the shapes of s,p,d and f - orbitals with neat sketch.
21. Write a brief account of special features of Long form periodic table
22. Discuss the general preparation and properties of cyclo alkanes.
23. a. Explain the laws of crystallography b. Derive Bragg ' s equation
24. Discuss the applications of solubility product in qualitative analysis.