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

Time : 3 Hours

Max.marks :60

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

Answer any **TEN** questions

- 1. State Huckel's rule.
- 2. What are the reagents required for Friedal Crafts acylation reaction?
- 3. Write the formula of hypophosphorous acid.
- 4. Mention any two uses of phosphates.
- 5. What are amphoteric oxides?
- 6. Mention any two significant role of ozone.
- 7. Draw the structure of borazine.
- 8. What is an inorganic polymer?
- 9. What do you mean by trace metals?
- 10. Give the reasons for toxicity of Cd metal.
- 11. Write the formula of superphosphates.
- 12. Mention any two properties of thionyl compounds.

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

Answer any **FIVE** questions

- 13. Explain the concept of directive influence of functional groups.
- 14. Write the role of phosphorous in NPK fertilizer.
- 15. Discuss the allotropy nature of oxygen group elements.
- 16. Explain the synthesis and applications of borazine polymer.
- 17. What is toxicity? Are Hg and Pb toxic? Give their adverse effects.
- 18. Discuss the mechanism of benzene sulphonation reaction.
- 19. State and explain the oxoacids of Sulphur.

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

Answer any **THREE** questions

- 20. Write down the mechanism of Friedal Crafts Alkylation reaction.
- 21. Explain the preparation, properties and uses of Nitric acid and Pernitric acid.
- 22. Explain the preparation, properties, structure and uses of Dithionic acid.
- 23. Discuss the synthesis, structural aspects and applications of silicones.
- 24. How iron plays a significant role in the biological system? Explain with a suitable example.

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