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. Complete the following equation
   $N_2H_4 + CuSO_4 \rightarrow ?$
2. Mention any two uses of Se.
3. How is astatine synthesized.
4. Draw the structure of $XeOF_4$.
5. How is sodium bismuthate prepared.
6. Find out the oxidation of sulphur in the following compounds.
   a. H_2SO_3 b. $H_2S_2O_6$.
7. How is oxalic acid prepared.
8. Write the order of acid strength of *o*, *m*, *p*, nitrophenols.
9. What is Reimer-Tiemann reaction?
10. Why phenols are more acidic than alchohols?
11. Define isoelectric point.
12. What are essential amino acids? Give two examples.

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

Answer any **FIVE** questions

13. How is hydroxyl amine prepared? Explain its properties.
14. Discuss the structure of the following compounds.
    a. XeF_2 b. XeF_6
15. What happens when
    a. Malonic acid is treated with P_2O_5.
    b. Oxalic acid reacts with glycerol at 260°C.
16. Carry out the following conversions
    a. Phenol to 4 – methoxybenzyl alcohol
    b. Phenol to 2,4- dinitrochlorobenzene
17. Write a note on classification of amino acids.
18. How is naphthol prepared? Explain its properties and uses.
19. Discuss the exceptional properties of fluorine.

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

Answer any **THREE** questions

20. Write an essay on the oxyacids of phosphrous.
21. Explain the following reactions
    a. Mechanism of nitration b. Gattererman c. Houben–Hoesh
22. Discuss the synthesis and properties of catechol and resorcinol.
23. How is glycine synthesized? Explain its properties and reactions.
24. Write a comparative account of the chemistry of As, Sb and Bi.

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