

B.Sc. DEGREE EXAMINATION, NOVEMBER 2018
II Year IV Semester
Core Major - Paper VII
GENERAL CHEMISTRY -VII

Time : 3 Hours

Max.marks :60

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

Answer any **TEN** questions

1. H_3PO_4 is weaker acid than H_3PO_3 . Why?
2. Write the products formed when hydrazine reacts with gold chloride.
3. Why H_2S is a gas and H_2O is a liquid?
4. What are pseudo halogens? Give an example.
5. Write how XeOF_4 is prepared.
6. What happens when acetic acid is treated with PCl_5 ?
7. Write the reaction when resorcinol is treated with alkyl cyanaide in the presence of zinc chloride and hydrogen chloride.
8. How is catechol prepared?
9. How will you synthesise salicylaldehyde from phenol?
10. Write the uses of beta - Naphthol.
11. What is Zwitter ion? Give an example.
12. What are essential amino acids? Give examples.

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

Answer any **FIVE** questions

13. Write preparation, properties and structure of hydrozoic acid.
14. How is perdisulphuric acid prepared? How it reacts with KI and FeSO_4 ?
15. Explain the exceptional properties of fluorine.
16. Give the preparation and properties of succinic acid.
17. Write Kolbe reaction and its mechanism.
18. Illustrate with suitable example coupling reaction and discuss the factors which influence coupling.
19. How will you synthesise glycine from potassium phthalimide. what happens when glycine is treated with (i) NaOH and (ii) LiAlH_4

Section C ($3 \times 10 = 30$) MarksAnswer any **THREE** questions

20. What are interhalogen compounds? Write the preparation, properties and structure of IF_7 .
21. (a) Explain electronic configuration and position of Noble gases in the periodic table.
(b) How is XeF_6 prepared? Explain its structure.
22. (a) Describe the nitration reaction of phenol.
(b) Write a short note on Lederer - Manasse reaction.
23. (a) Write the preparation and properties of 2,4,6 trinitro phenol.
(b) Explain the preparation and properties of phloroglucinol.
24. (a) Describe the general characteristics of nitrogen family.
(b) Write the preparation and properties of meta cresol.

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