B.Sc. DEGREE EXAMINATION,APRIL 2020
I Year II Semester
Allied Chemistry - II

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

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

Answer any **TEN** questions

1. Define chelation
2. Write the structure of EDTA metal complex.
3. How are carbohydrates classified?
4. What is mutarotation?
5. Give examples of essential and non essential amino avid.
6. Differentiate RNA and DNA.
7. Define standard electrode potential.
8. What are the methods to prevent corrosion?
9. Write the principle of volumetric analysis.
10. Define crystallization.
11. Calculate the EAN of $[Ni(Co)_4]$ and $[Co(CN)_6]^{3-}$
12. What is denaturation of proteins?

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

Answer any **FIVE** questions

13. Explain the postulates of Pauling's theory.
14. How is glucose converted to fructose.
15. Explain Bergmann method for the synthesis of dipeptide.
16. Define electrochemical series. Explain its applications.
17. Explain the principle and application of ion exchange chromatography.
18. Explain the structure and function of hemoglobin and chlorophyll.
19. Explain the action of heat on amino acids.

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

Answer any **THREE** questions

20. Explain the application of coordination compounds in qualitative and quantitative analysis.
21. Describe the open chain structure of glucose.
22. Discuss the primary and secondary structure of proteins.
23. Explain conductometric titration of hydrolysis of salts.
24. Describe separation techniques and thin layer chromatography

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