B.Sc. DEGREE EXAMINATION,APRIL 2019
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 the term chelation.
2. What are the central metal atoms present in haemoglobin and chlorophyll.
3. What happen when fructose is oxidized with conc.HNO_3?
4. Mention any two cellulose derivatives.
5. Define peptide bond.
6. What is meant by denaturation of proteins?
7. Define buffer solution.
8. What are fuel cells?
9. Mention any two advantage of TLC over paper chromatography.
10. Mention any two applications of gas-liquid chromatography.
11. Write a colour reaction of proteins.
12. Write any two causes of diabetes.

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

Answer any **FIVE** questions

13. Discuss Werner's Theory of coordination compounds.
14. Discuss the properties of sucrose.
15. Give any two method of preparation of alanine.
16. Define corrosion and explain any two methods for prevention of corrosion.
17. Explain crystallization technique with a suitable example.
18. Discuss the merits and demerits of Pauling's theory.
19. Describe the electrometric method of determination of pH.

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

Answer any **THREE** questions

20. Discuss the applications of coordination compounds in qualitative and quantitative analysis.
21. Describe the open chain and cyclic structure of glucose.
22. a.Classify protein bases on their biological functions. (5)
    b. Distinguish between DNA and RNA. (5)
23. a.Discuss briefly the importance of pH and Buffering in biological system. (5)
    b.Explain chrome plating technique. (5)
24. Describe the principle and applications of column chromatography.

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