



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

U.G. DEGREE EXAMINATION – ALLIED

FOURTH SEMESTER – APRIL 2022

18/17/16UCH4AL03 – GENERAL CHEMISTRY FOR BIOLOGY-II

Date: 27-06-2022

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

PART – A

Answer ALL questions.

(10 x 2 = 20)

1. What is Zwitter ion? Give its structure.
2. Write one test for Protein.
3. Mention the different types of enzyme inhibition.
4. What are lyases? Give an example.
5. What are steroids?
6. Give any two differences between simple and derived lipids.
7. What is meant by the replication of DNA?
8. Mention any four functions of carbohydrates.
9. What is sucrose? Give its structure.
10. What are alkaloids? Give its classification.

PART – B

Answer any EIGHT questions.

(8 x 5 = 40)

11. How are enzymes classified? Mention the factors affecting enzyme activities.
12. Explain the Michaelis-Menten theory of enzyme catalysis.
13. Briefly discuss the denaturation and renaturation of proteins.
14. Write short notes on: (i) rancidity (ii) saponification. (iii) hydrogenation of oil
15. Mention the alkaloid that is derived from tobacco. How is it extracted?
16. Discuss in detail the components of nucleic acid and structure of purine and pyridine bases.
17. Give the difference between reducing and non-reducing sugars.
18. Discuss in detail the classification of lipids. Mention its biological importance.
19. What are phospholipids? Briefly explain the functions of lecithin.
20. Describe the Watson - Crick Model of DNA.
21. What are fertilizers? How are they classified?
22. What are terpenoids? Give its isolation and biological importance.

PART – C

Answer any FOUR questions.

(4 x 10 = 40)

- 23a. What is Edman's reagent? Describe its use in the determination of amino acid sequence in proteins.
- b. What are proteins? Discuss the primary and secondary structure of protein.
24. Discuss in detail the difference between DNA and RNA.
25. What is transcription? Give in detail the different types of RNA.
26. What are hormones? Distinguish between glucocorticoids from mineral ocorticoids.
27. Name the terpene present in lemongrass oil. Outline its extraction and its biological importance.
28. Discuss in detail the types of soil fertilizers and role of macro and micronutrient.

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