

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



U.G. DEGREE EXAMINATION – ALLIED

SECOND SEMESTER – APRIL 2022

UCH 2301 – CHEMISTRY FOR BIOLOGY

(2019,2020 – BATCH ONLY)

Date: 27-06-2022

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

Part-A

Answer ALL questions.

(10 × 2 = 20)

1. Define 'universal antidote'.
2. What precautions should be taken before distillation of ether?
3. Define R_f value.
4. Give the advantages of TLC.
5. State the law of volumetric analysis.
6. Mention any three acid-base indicators.
7. Write any two ionic compounds.
8. What are the two types of hydrogen bonding?
9. What are polymers?
10. Give the differences between chromophores and auxochromes.

Part-B

Answer any EIGHT questions.

(8 × 5 = 40)

11. Explain the first aid procedure.
12. Mention the importance of MSDS of a chemical.
13. Describe the various steps involved in recrystallization.
14. How is paper chromatographic separation carried out?
15. What is the principle and technique involved in steam distillation process?
16. Define the term normality. Calculate the normality of NaOH if 40g of it is dissolved in 1 Litre of water.
17. Describe any three types of titrations with an example for each.
18. What is a covalent bond? Mention any five characteristics of covalent compounds.
19. Explain the structure and function of chlorophyll.
20. What are the different types of dyes? Give their applications.
21. Write a short note on vulcanization of rubber.
22. What is saponification? Give the difference between soaps and detergents.

Part-C

Answer any FOUR questions.

(4 × 10 = 40)

23. List the general rules to be borne in mind in storage and handling of chemicals.
24. Explain in detail how the components of a mixture can be separated using column chromatography.
25. Describe the different types of errors. How can they be minimized?
26. a) Discuss the principle involved in the fractional distillation process. (5)
b) Draw and explain the structure of NaCl. (5)
27. a) What are the factors influencing the formation of ionic compounds? (5)
b) Write short notes on natural and synthetic polymers. (5)
28. What is pasteurization? Discuss in detail the composition of milk and homogenization.

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