



K23U 0474

Reg. No. :

Name :

VI Semester B.Sc. Degree (CBCSS – OBE – Regular/Supplementary/
Improvement) Examination, April 2023
(2019 and 2020 Admissions)

CORE COURSE IN CHEMISTRY/POLYMER CHEMISTRY
6B14CHE/PCH : Organic Chemistry – III

Time : 3 Hours

Max. Marks : 40

Instruction : Answer the questions in **English** only.

SECTION – A

Answer **all** questions. **Each** question carries **1** mark :

1. Draw the structure of crotonic acid and give its IUPAC nomenclature.
2. Give any two examples for psychoactive drugs.
3. Name two tests to distinguish primary and secondary amines.
4. Suggest a reaction for the synthesis of cinnamic acid. (4×1=4)

SECTION – B

Answer **seven** questions out of **10**. **Each** carries **2** marks :

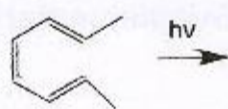
5. Explain epimers and anomers.
6. Draw the structure of guanine and uracil.
7. Explain Blanc's rule.
8. How will you prepare the dipeptide Gly-Ala ?
9. Explain the basic character of pyrrole and pyridine.
10. Mention any one narcotic and non-narcotic drug with their uses.
11. Illustrate an example for microwave assisted reaction in water.

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K23U 0474



12. How will you prepare amines from acyl azides ?
13. Give the product of the following with stereochemistry.



14. Give the synthesis of citric acid. (7×2=14)

SECTION – C

Answer **four** questions out of **6**. **Each** carries **3** marks :

15. How will you convert arabinose to glucose ?
16. Suggest a method for the synthesis of adenine and thymine and explain it.
17. Explain (4 + 2) cycloaddition with suitable example using FMO approach.
18. Write a note on Norrish type I and II cleavage.
19. Discuss the role of nucleic acid in biosynthesis of protein.
20. Explain the mode of action of sulpha drugs and give the synthesis of sulphacetamide. (4×3=12)

SECTION – D

Answer **two** questions out of **4**. **Each** carries **5** marks :

21. Explain the interconversion of aldohexose and ketohexose with suitable example.
22. Discuss the reduction of nitrobenzene under different conditions.
23. a) Explain the preparation, properties and structure of indole.
b) Write a short note on atom economy.
24. Give the structure and explain the medicinal importance of the following :
a) Nicotine b) Quinine c) Vitamin C d) Citral (2×5=10)