K24U 0019

Reg. No. : .....

Name : .....

Sixth Semester B.Sc. Degree (C.B.C.S.S. – OBE – Regular/Supplementary/ Improvement) Examination, April 2024
(2019 to 2021 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

(Very short answer type. **Each** carries **1** mark. Answer **all 4** questions.)

1. Draw the structure of anthranilic acid and give its IUPAC name.
2. Give two examples of psychoactive drugs.
3. How will you prepare nitrobenzene ?
4. Suggest a reaction for the synthesis of lactic acid. **(4×1=4)**

SECTION – B

(Short answer type. **Each** carries **2** marks. Answer **any 7** questions.)

5. What are the colour tests for carbohydrates ?
6. What is called denaturation of proteins ? Explain with examples.
7. How will you distinguish maleic and fumaric acid ?
8. Discuss the Strecker synthesis of amino acids.
9. Compare the basic character of pyridine and pyrrole.
10. Draw any two sulpha drugs and their uses.
11. Illustrate the ultrasound assisted reaction in esterification.
12. Explain the Mannich reaction with example.
13. Discuss 1,5 sigmatropic reactions with example.
14. How will you prepare crotonic acid and write its IUPAC name. **(7×2=14)**

P.T.O.

SECTION – C

(Short essay type. **Each** carries **3** marks. Answer **any 4** questions.)

15. How will you convert D-arabinose to D-mannose ?
16. Explain the Watson-Crick model of DNA.
17. Explain 4n system of electrocyclic reaction with a suitable example using FMO approach.
18. Write a note on Norrish type I and II cleavage.
19. Explain Merrifield solid phase synthesis.
20. Write a note on CNS drugs and synthesize Phenobarbital. **(4×3=12)**

SECTION – D

(Long essay type. **Each** carries **5** marks. Answer **any 2** questions.)

21. Explain the interconversion of glucose and fructose.
22. Briefly explain the structure elucidation of nicotine.
23. a) Explain the preparation, properties and structure of pyridine.
    b) Explain any five principles of green chemistry. **(3+2)**
24. Explain the reactions a) Hoffmann bromamide reaction, b) Curtius reaction, c) Schmidth reaction. **(2×5=10)**
