K18U 0085

Reg. No. : .....

Name : .....

VI Semester B.Sc. Degree (CBCSS – Reg./Supple./Imp.) Examination, May 2018
CORE COURSE IN CHEMISTRY
6B14 CHE : Organic Chemistry III
(2014 Admn. Onwards)

Time : 3 Hours Max. Marks : 40

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

SECTION – A

Answer **all 4** questions. **1** mark **each**. **(4×1=4)**

1. Write the structure of tartaric acid.
2. An example for acidic aminoacid is
3. The first antibiotic drug is
4. Ammonium thiocyanate on heating forms

SECTION – B

Short answer type. Answer **any 7** questions. **2** marks **each**. **(7×2=14)**

5. What is Rosenmund's reduction ?
6. Distinguish between antipyretics and analgesics with examples.
7. Write any two differences between acetaldehyde and acetone.
8. Write the method of preparation of a) salicylic acid and b) antranilic acid.
9. How will you distinguish between organic cyanides and isocyanides ?
10. Write the mechanism of Reformatsky reaction.

P.T.O.

11. Write a short note on microwave assisted organic synthesis.

12. Illustrate isoprene rule by taking an example.

13. How are urethanes prepared ? What are their uses ?

14. Give the structure of a) Methyl orange and b) Indigo.

SECTION – C

Short essay type. Answer **4** questions. **3** marks **each**. **(4×3=12)**

15. With the help of a diagram explain the structure of DNA.

16. What is Blanc's rule ? Write a reaction to distinguish between maleic and fumaric acids.

17. Explain with mechanism a) Cannizzaro's reaction and b) Crossed Cannizzaro's reaction.

18. Explain a) Isoelectric point b) Zwitter ions and c) Sorenson formal titration.

19. What is Diels-Alder reaction ? Analyse a [2 + 2] cycloaddition using FMO method.

20. Explain Arndt-Eistert synthesis with mechanism.

SECTION – D

Long essay type. Answer **2** questions. **5** marks **each**. **(2×5=10)**

21. How is acetoacetic ester prepared ? Write the mechanism of the reaction involved. Write any four synthetic applications of acetoacetic ester.

22. a) How will you convert benzaldehyde into cinnamaldehyde ? Write the mechanism of the reaction involved.

    b) Write the mechanism of Beckmann rearrangement.

23. Write and explain any 10 principles of green chemistry.

24. How are 1°, 2° and 3° amines separated by the Hinsberg and Hoffmann methods ?

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