(Pages : 4) **N – 7798**

Reg. No. : .....

Name : .....

Fourth Semester B.Sc. Degree Examination, August 2022

First Degree Programme under CBCSS

Chemistry

Complementary Course for Botany

CH 1431.3 : ORGANIC CHEMISTRY

(2020 Admission)

Time : 3 Hours Max. Marks : 80

SECTION – A

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

1. How we can find the positions on migrated spots on chromatogram?
2. What is Elution?
3. Arrange the following according to CIP rule NH_2, CH_3, Cl, CHO.
4. Define genetic code.
5. What is saponification value?
6. Predict the oxidation product of glucose with Bromine water.
7. What are polysaccharides? Give an example.
8. What is pharmacogency?
9. Explain the term infusion.
10. Draw the structure of phenyl alanine.

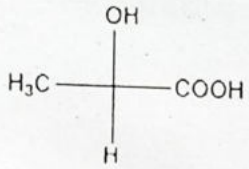
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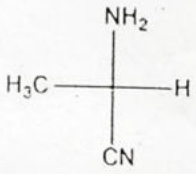
SECTION – B

Answer **any eight** questions. Each question carries **2** marks.

11. Mesocompounds are optically inactive. Explain with an example.

12. Write the R and S notation of the following two compounds

(a) 

(b) 

13. Give any two methods of preparation of aminoacids.

14. Draw the structure of Vitamin B1.

15. Comment on the importance of codeine.

16. Discuss the functions of Vitamin C.

17. Name four methods of drug evaluation.

18. What is isoprene rule?

19. Give the reduction product of fructose.

20. Explain the term iodine value.

21. What are reducing and no reducing sugars? Give examples.

22. Discuss Xanthoproteic test.

23. What are antipyretics? Give an examples.

24. What are essential oils? How are they isolated?

25. Define the term chirality.

26. What are glycosides?

SECTION – C

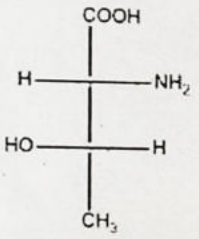
Answer **any six** questions. Each question carries **4** marks.

27. Write a note on Thin Layer Chromatography.

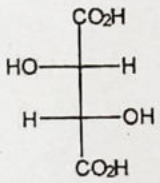
28. Discuss the differences between diasteroisomers and enantiomers.

29. Assign the Rand S configuration to the following compounds

(a)



(b)



30. Distinguish between DNA and RNA.

31. Explain biochemical method of resolution.

32. What are antibiotics? Explain the mode of action using any example.

33. What is mutarotation?

34. Explain the classification of terpenoids.

35. Give a short note on the elements of symmetry.

36. What are Vitamins. Give the structures of Vitamin C. Discuss their biological functions.

37. What is iodine value? How is it determined? What is its importance in the analysis of oils or fats?

38. Give an account of the different colour tests of proteins.

SECTION – D

Answer **any two** questions. Each question carries **15** marks.

39. Explain the following
    (a) The principle and applications of Capillary electrphoresis and
    (b) Explain the optical isomerism in lactic acid.

40. (a) Write a note on the structure of DNA.
    (b) Distinguish between Transcription and translation.

41. Describe the
    (a) Important reactions of glucose and
    (b) Explain the important classification of drugs.

42. Briefly explain
    (a) The preparation and reactions of amino acids and
    (b) The carbobenzoxy method.

43. Explain the
    (a) Structure function and deficiency disease of Vitamin A and
    (b) Conversion of glucose to fructose.

44. Elucidate the structure of coniine.
