Reg. No. : ....

Name : ....

Third Semester B.Sc. Degree Examination, March 2021

First Degree Programme under CBCSS

Chemistry

Complementary Course for Home Science

CH 1331.5 : ORGANIC CHEMISTRY II

(2017 & 2018 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

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

1. State Hardy-Schultz rule.

2. Give one example for a monoterpenoid.

3. What is the monomer of natural rubber?

4. What is meant by coagulation?

5. Draw the structure of camphor.

6. What are the adsorbents used in column chromatography?

7. Name any one alkaloid present in opium.

8. What is the significance of R_f value in TLC?

9. Give an example for associated colloid.

10. What is neoprene?

(10 × 1 = 10 Marks)

SECTION – B

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

11. What are azodyes? Give an example.

12. What are mordant dyes? Give an example.

13. Explain the cleansing action of soaps.

14. What are emulsifiers?

15. Explain the synthesis of phenolphthalein.

16. What are the monomers of nylon 66?

17. Point out applications of geraniol and menthol.

18. Explain Freundlich adsorption isotherm.

19. What is Buna-N?

20. What is thixotropy?

21. Draw the structure of PVC and PVA. Mention any one example for each.

22. Draw the structure of methyl orange. Name the chromophore and auxochrome present in methyl orange.

(8 × 2 = 16 Marks)

SECTION – C

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

23. Explain how colloids are purified.

24. Explain how methoxy group in alkaloids are estimated.

25. Write a short note on isolation of alkaloids from plant sources.

26. Give an account of Hofmann's exhaustive methylation with an example.

27. Give an account of the classification of terpenoids.

28. Explain the preparation and uses of malachite green.

29. State and explain isoprene rule with an example.

30. Give an account of the applications of TLC.

31. Give an account of electrical properties of colloids.

(6 × 4 = 24 Marks)

SECTION – D

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

32. (a) Describe the classification of dyes based on their chemical structure. Give one example with structure in each category. **10**

    (b) Write a note on Witt's theory of colour and constitution. **5**

33. Write short note on :

    (a) Langmuir adsorption isotherm

    (b) Gibbs adsorption isotherm.

    (c) Column chromatography. **3 × 5**

34. (a) Give an account of the synthesis and major applications of PMMA, PTFE, and Terylene.   **3 x 3 = 9**

    (b) Give the name, structure and application any two polymers used in medicine and surgery   **6**

35. (a) Enumerate the applications of colloids

    (b) Point out the major differences between thin layer chromatography and paper chromatography.   **8 + 7 = 15**

(2 x 15 = 30 Marks)

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