

(Pages : 4)

K – 2448

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**

**(2019 Admission Regular)**

Time : 3 Hours

Max. Marks : 80

**SECTION – A**

Very Short answer types questions (One word to Maximum of 2 sentences) :

Answer **all** questions.

1. What are gels?
2. What is adsorption?
3. Define enthalpy of adsorption.
4. What is desorption?
5. What are electromagnetic radiations?
6. State Isoprene rule.

**P.T.O.**

7. Give the structure of natural rubber.
8. Write two uses of camphor.
9. Give the structure of quinine.
10. Write the name and formula of the monomer of PVC.

**(10 × 1 = 10 Marks)**

### SECTION – B

Short answer types questions (Not to exceed One paragraph) :

Answer **any eight** questions.

11. Explain tyndall effect.
12. What are protective colloids?
13. State the Hardy-Schultz rule.
14. Define the terms: adsorbent and adsorbate.
15. Mention two important factors that influence adsorption of gases on solid surfaces.
16. What are chromophores? Give examples.
17. What are dyes? Give examples.
18. Give the synthesis of phenolphthalein with structure.
19. What are synthetic rubbers? Give examples.
20. Enumerate the chemical properties of camphor.
21. Write the physiological properties of codeine.

22. What is the importance of alkaloids in nature?
23. Give the structure and physiological actions of nicotine.
24. What are polymers? How are they classified on the basis of origin?
25. What is Terylene?
26. Represent the chemical formula of the polymer used as coating in non-stick cookware. Write the peculiarities of the polymer.

**(8 × 2 = 16 Marks)**

### SECTION – C

Short essay type questions (Not to exceed 120 words) :

Answer **any six** questions.

27. Explain the purification of sols.
28. Describe the cleansing action of soap.
29. Distinguish between physisorption and chemisorption.
30. How does adsorption help in catalysis?
31. Give the preparation and uses of fluorescein.
32. Write notes on complementary colours?
33. Give the structure, properties and uses of citral.
34. Write notes on Isolation of mono and sesquiterpenoids.
35. Explain Hoffmann exhaustive methylation.
36. Explain how the functional nature of oxygen is determined in alkaloids.
37. What is PVF? Write the preparation and uses of it.
38. What is the structural difference between nylon 66 and nylon 6?

**(6 × 4 = 24 Marks)**

## SECTION – D

Long essay type questions:

Answer **any two** questions.

39. Explain the methods of preparation of lyophobic colloids.
40. Explain the different chromatographic techniques.
41. Write an essay on various colour theories.
42. How are terpenes classified? Explain.
43. Discuss the general methods of isolation of alkaloids.
44. Write short notes on :

(a) Polymers used in medicine and surgery

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(b) Preparation, properties and uses of terephthalate.

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(2 × 15 = 30 Marks)

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