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J – 1939

Reg. No. :

Name :

Sixth Semester B.Sc Degree Examination, March 2020

First Degree Programme under CBCSS

CHEMISTRY

Core Course XI

CH 1642 – ORGANIC CHEMISTRY II

(2017 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

(Answer **all** questions. Answer in **one** word to maximum **two** sentences. Each question carries **one** mark)

1. Carbohydrate primarily exists in their _____ forms.
2. Glucose is _____ of Galactose.
3. Mention any two colour reactions of proteins.
4. Give the monomers of Buna – N .
5. Write the structure of sulphathiazole.
6. Give two examples of essential amino acids.
7. What are terpenes?

P.T.O.

8. Give two important uses of Quinine.
9. Write the name of monomer of Natural Rubber and classify them as addition or condensation polymer.
10. Identify the best suitable organometallic reagent for preparing 1-phenylbutane from 1-bromobutane.

(10 × 1 = 10 Marks)

SECTION – B

(Short answer type. Answer any 8 questions. Each question carries 2 marks)

11. Draw the partial structure of Cellulose.
12. Write the structures and names of the principal products obtained from the reactions of Quinoline and oleum at 90 °C.
13. Compare the basicities of pyridine and pyrrole.
14. What is mean by simple lipid? Give two examples.
15. Give the structure of purine and pyrimidine bases.
16. Discuss the role of stabilizers in polymer science.
17. Write a short note on SBR.
18. What is NBS? Give its one synthetic use.
19. Write down the characteristics of a good plasticizer.
20. Draw the structure of vitamin A.
21. Give an example, wherein, diborane can be used for the reduction of carbonyl functional group.
22. What is Riley Oxidation?

(8 × 2 = 16 Marks)

SECTION – C

(Short Essay type. Answer any 6 questions. Each question carries 4 marks)

23. What is mean by anomeric carbon? What does mutarotation means?
24. Write the tandem steps involved in Bischler-Napieralski synthesis.
25. Discuss the Hantzsch pyridine synthesis.
26. Discuss Isoprene rule by citing Citral as an example.
27. Write the structure and the application of paracetamol.
28. Discuss how soap emulsifies nonpolar substances in water
29. Show how you would adopt amidomalonate synthetic method to prepare amino acids.
30. Write in brief on transcription.
31. Elucidate the structure of nicotine

(6 × 4 = 24 Marks)

SECTION – D

(Essay type. Answer any 2 questions. Each question carries 15 marks)

32. (a) Discuss Kiliani-Fischer synthesis.
(b) Write a short essay on Fischer Indole synthesis.
(c) What are thermosetting and thermoplastic polymers? Give examples for each. (6+4+5)
33. Give the mechanism of the following reactions
(a) Reformatsky reaction
(b) Claisen condensation.
(c) How does glucose react with osazone and Fehling' s solution. (4+4+7)

34. (a) Discuss the structure of DNA

(b) Explain the preparation and uses of the following polymers

(i) Nylon 6,6 and

(ii) PET

(5+10)

35. Write an essay on the reactions of Organo Magnesium compounds to show its synthetic applications.

(2 × 15 = 30 Marks)