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Reg. No. : .....

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Sixth Semester B.Sc. Degree Examination, April 2019
First Degree Programme Under CBCSS
Chemistry
Core Course – XI
CH 1642 : ORGANIC CHEMISTRY – III
(2013 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

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

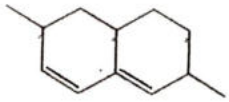
1. What are the monomers of nylon 6, 6 ?
2. What is the stretching frequency of carbonyl group in benzaldehyde ?
3. Give an example for a coordination polymerisation.
4. Give an example of a sulpha drug.
5. What is the product formed when N, N-Dimethyl aniline reacts with nitrous acid ?
6. What is a molecular ion peak ?
7. What is the major product formed when nitrobenzene is treated with hydrogen in presence of Raney nickel ?
8. Name one vat dye.
9. Draw the structure of pyramidine.
10. How many peaks are present in the PMR spectrum of acetone ?

(10×1=10 Marks

SECTION – B

Answer **any 8** questions. **Each** question carries **2** marks.

11. Explain Hofmann elimination.
12. What are the different types of polymerizations ?
13. Give a method of preparation of sulphanilamide.
14. Draw the structure of sulphadiazine.
15. What is Buna-N ?
16. What is Sandmeyer reaction ?
17. What is benzidine rearrangement ?
18. Explain the synthesis of fluoresceine.
19. What is an auxochrome ?
20. What is a prodrug ?
21. Calculate λmax for the following compound.



22. What is meant by hyperchromic shift ?

(8×2=16 Marks)

SECTION – C

Answer **any 6** questions. **Each** question carries **4** marks.

23. What is PMMA ? How it is synthesized ? What are its important applications ?
24. Draw the PMR spectrum of acetaldehyde.
25. Discuss the reduction of nitrobenzene under different acidic, basic and neutral medium.

26. Discuss about the preparation and properties of pyridine.

27. Explain spin-spin splitting.

28. Write a note on sulpha drugs.

29. Discuss about Zeigler Natta polymerization.

30. Explain the classification of drugs.

31. Explain how to distinguish primary, secondary and tertiary amines.

(6×4=24 Marks)

SECTION – D

Answer **any 2** questions. **Each** question carries **15** marks.

32. Discuss about the preparation, structure and synthetic applications of diazonium compounds.

33. Explain :
    i) Mclafferty rearrangement
    ii) The factors influencing chemical shift values.

34. Explain :
    i) Discuss the classification of dyes.
    ii) Outline the synthesis of alizarin and malachite green.

35. Explain :
    i) The structure elucidation of pyridine.
    ii) Discuss the importance of heterocyclic compounds in medicine.

(2×15=30 Marks)
