



22101780

QP CODE: 22101780

Reg No :

Name :

B.Sc DEGREE (CBCS) SPECIAL SUPPLEMENTARY EXAMINATIONS, MAY 2022

Fifth Semester

CORE COURSE - CH5CRT06 - ORGANIC CHEMISTRY-III

Common for B.Sc Chemistry Model I, B.Sc Chemistry Model II Industrial Chemistry & B.Sc Chemistry Model III Petrochemicals

2019 Admission Only

563507E7

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Name the compound – $C_6H_5CH_2NO_2$
2. Draw the structure of diphenylamine.
3. Which are the electrophile involved in nitration and sulphonation?
4. Which is more basic - ethylamine or aniline?
5. Draw the orbital picture of Furan.
6. Draw the structure of ethylacetoacetate.
7. What are reducing sugars? Give example.
8. Draw the structure of sucrose.
9. What do you mean by the terms 'bactericidal' and 'bacteriostatic'?
10. How does chlorambucil act against cancer?
11. What are the essentials of a coloured substance to act as a dye?
12. Give the method of preparation of PVC.

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*





13. Discuss (a) the electrolytic reduction of nitrobenzene at various pH conditions and (b) metal halide reduction.
14. Compare the stability of alkyl and aryl diazonium salts.
15. Explain the following methods of synthesis of pyrrole:
(a) Paal-Knorr synthesis (b) Knorr-Pyrrole synthesis
16. How will you convert cyanoacetic ester into (a) Malonic acid (b) Succinic acid and (c) alpha-beta unsaturated acid?
17. Briefly explain the evidences in favour of ring structure of glucose
18. How will you convert arabinose to glucose and mannose
19. Write briefly on psychotropic drugs
20. How will you prepare Rosaniline? To which class does this dye belong? What is its use?
21. Write briefly on classification of polymers.

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **10** marks.

22. (a) Explain separation of a mixture of 1°, 2° and 3° amines using Hinsberg reagent.
(b) Explain use of Quaternary amine salts as phase-transfer catalysts.
23. Write notes on: (a) Fischer's indole synthesis (b) Friedlander's synthesis (c) Bischler-Napieralski Synthesis
24. What are polysaccharides? Draw the structure of cellulose and discuss its industrial applications.
25. (a) Discuss the preparation and application of the synthetic rubbers:
(i) SBR
(ii) Neoprene
(b) What are conducting polymers? Explain with suitable example.

(2×10=20)

