



23108082

QP CODE: 23108082

Reg No :

Name :

**B.Sc DEGREE (CBCS) SPECIAL SUPPLEMENTARY EXAMINATIONS,
APRIL 2023**

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

2020 Admission Only

DED65D82

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. Name the compound – $\text{O}_2\text{NCH}_2\text{CH}(\text{C}_6\text{H}_5)\text{CH}_2\text{COOC}_2\text{H}_5$
2. Arrange in the order of increasing basic strength: $(\text{CH}_3)_3\text{N}$, NH_3 , CH_3NH_2 and $(\text{CH}_3)_2\text{NH}$.
3. Give the structure of benzene diazonium chloride.
4. $\text{N}_2\text{CHCOOEt} + \text{HCl} \rightarrow ?$
5. Name the product formed when pyrrole is oxidized with chromium trioxide.
6. Draw the structure of ethyl cyanoacetate.
7. What are anomers? Give example.
8. Which are the two fractions by which starch is constituted?
9. What are analgesics? Give two examples.
10. What are stimulants? Give one example.
11. Distinguish between synthetic and natural Dyes.
12. What are copolymers? Give one example.

(10×1=10)





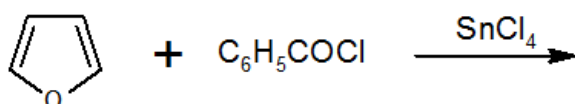
Part B

Answer any **six** questions.

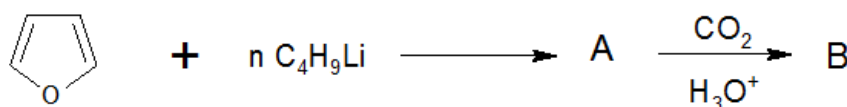
Each question carries **5** marks.

13. Suggest and illustrate a method to find the structure of the parent amine of a quaternary ammonium halide.
14. What are phase transfer catalysts? Illustrate its use with example.
15. (a) Write an equation for the reaction between Furan and maleic anhydride.
(b) Why is furan the only five membered ring heterocyclics undergoing the above reaction?
(c) Complete the following Reaction.

(i)



(ii)



16. Explain a method for the preparation of ethylacetoacetate.
17. What are reducing and non-reducing sugars? Explain the reducing property of glucose using suitable reactions.
18. Explain the chain lengthening and shortening of aldoses with examples
19. Write briefly on the different classes of antibiotics with suitable examples.
20. How will you prepare Rosaniline? To which class does this dye belong? What is its use?
21. Explain briefly on Environmental hazards and biodegradability of polymers.

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **10** marks.





22. Explain (a) Reductive amination of aldehydes and ketones (b) Gabriel's phthalimide synthesis and (b) Hofmann bromamide reaction.
23. Write notes on:
(a) Fischer's indole synthesis
(b) Friedlander's synthesis
(c) Bischler-Napieralski Synthesis
24. (a) What are disaccharides? Draw the cyclic structure of (i) maltose (ii) cellobiose and mention the monosaccharide units present in it.
(b) Briefly explain the reactions and uses of sucrose.
25. Discuss the preparation, structure and applications of the following polymers.
(a) PET
(b) Phenol-formaldehyde Resin
(c) Urea-Formaldehyde Resin

(2×10=20)

