QP CODE: 19102430

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Reg No : .....

Name : .....

BSc DEGREE (CBCS) EXAMINATION, OCTOBER 2019

Fifth Semester

Core Course - CH5CRT06 - ORGANIC CHEMISTRY-III

B.Sc Chemistry Model I ,B.Sc Chemistry Model II Industrial Chemistry ,B.Sc Chemistry Model III Petrochemicals

2017 Admission Onwards

BE511389

Maximum Marks: 60 Time: 3 Hours

Part A

*Answer any **ten** questions.*

Each question carries 1 mark.

1. Draw the structure of Aci form of nitromethane.
2. Draw the structure of diphenylamine.
3. Arrange in the order of increasing basic strength: $(CH_3)_3N$, NH_3, CH_3NH_2 and $(CH_3)_2NH$.
4. What is the structure of ketene?
5. Give one method of synthesis of Furan.
6. Draw the structure of diethyl malonate.
7. Write the chemical equation for the reaction between glucose and Fehling solution.
8. What are disaccharides? Give example
9. What is chemotherapy?
10. What are antidepressants? Give one example
11. Azobenzene though a coloured compound not a dye.Explain the reason.
12. Give the method of preparation of PVC.

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. How the amino group in aniline influence the kinetics and orientation of nitration?

14. Explain Sandmayer reaction with mechanism. How it is compared to Gattermann reaction?

15. (a) Which is more basic pyridine or pyrrole? Explain.
    (b) Explain why Pyrrole undergoes electrophilic substitution at 2-position.
    (c) Why does pyridine undergo nitration much slower than benzene?

16. Discuss Keto-enol tautomerism in ethylacetoacetate.

17. What are osazones? How are they prepared?

18. How will you convert glucose to fructose and vice versa.

19. What are antacids? Give the name, structure, uses and mode of action of ranitidine.

20. Write the method of preparation of Indigotin and explain how it is applied on the Fabric.

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. Discuss the reduction of nitrobenzene under various reaction conditions and reagents.

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. Explain the mechanism of the following polymerisations :
    (a) Cationic Polymerisation
    (b) Anionic poymerisation
    (c) Free radical
    polymerisation.

(2×10=20)