

QP CODE: 19102430



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 I mark

- . Draw the structure of Aci form of nitromethane.
- 2. Draw the structure of diphenylamine.
- 3 Arrange in the order of increasing basic strength: (CH₃)₃N, NH₃, CH₃NH₂ and (CH₃)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
- Ξ. Azobenzene though a coloured compound not a dye. Explain the reason.
- 12. Give the method of preparation of PVC.

 $(10 \times 1 = 10)$

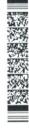
Part B

Answer any six questions.

Each question carries 5 marks.

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.
- Explain briefly on Environmental hazards and biodegradability of polymers

 $(6 \times 5 = 30)$

Part (

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
- 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.

 $(2 \times 10 = 20)$

