QP CODE: 24027347

24027347

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE EXAMINATIONS, OCTOBER 2024

Third Semester

B.Sc Chemistry Model II Industrial Chemistry

VOCATIONAL COURSE - CH3VOT04 - UNIT PROCESSES IN ORGANIC CHEMICALS MANUFACTURE

2017 Admission Onwards

63BB78D0

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. Give the structure of acetanilide.
2. Name the reagent used to convert chlorobenzene to p-nitrochlorobenzene.
3. Define sulphonation.
4. Give the product of sulphonation of naphthalene.
5. What is dehydrogenation?
6. Give an example for the catalyst used in the oxidation of Toluene to benzoic acid.
7. What is hydrogenation?
8. Give one example for enzyme hydrolysis.
9. Name the enzyme that convert sucrose to glucose.
10. What is amination?
11. Give one method for the conversion of *p*-nitrochlorobenzene to *p*-nitroaniline.
12. Write one example for alkylation by alkene.

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Explain why toluene undergoes nitration faster than benzene.
14. Write a note on the mechanism of halogenation reactions.
15. Briefly discuss about the reagents used for oxidation reactions.
16. Describe the manufacture of acrolein.
17. Write briefly on hydrogenation of acids and esters.
18. What is esterification? Derive esterification constant using an example.
19. Give one method for the preparation of ethyl acetate.
20. What are the products formed when nitrobenzene is reduced under acidic and alkaline medium ? Explain.
21. Write a note on the manufacture of phynyl ethyl alcohol.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. a. Write a note on continuous and batch nitration.
    b. Discuss the merits and demerits of continuous and batch nitration.
23. Describe the industrial manufacturing process of i) Monochloroacetic acid ii) DDT.
24. Describe the manufacture of methanol in detail.
25. Write a note on the hydrolysis of carbohydrates.

(2×10=20)