



C20-CH-404

7468

BOARD DIPLOMA EXAMINATION, (C-20)

OCTOBER/NOVEMBER—2023

DCHE – FOURTH SEMESTER EXAMINATION

ORGANIC CHEMICAL TECHNOLOGY

Time : 3 Hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Write a short note on compressed air.
2. What is isomerization?
3. Describe the origin of crude petroleum.
4. Differentiate between thermal and fluid catalytic cracking.
5. What is catalytic reforming?
6. Define the terms (a) alkylation and (b) polymerization.
7. List out the detergent builders.
8. List out the raw materials necessary for the production of detergents.
9. What is denaturing?
10. What are the uses of nylon 6, 6?

PART—B

8×5=40

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **eight** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Explain the working of cooling tower and uses in a process plant.

(OR)

Describe coal tar distillation process with a flow diagram.

12. Describe the production of phenol with a flow sheet.

(OR)

Describe the production of formaldehyde with a flow sheet.

13. Describe the Kraft process for the production of sulfate pulp with a flow sheet.

(OR)

Describe the chemical recovery process from black liquor in paper industry with a flow sheet.

14. Differentiate between aerobic and anaerobic fermentation processes.

(OR)

Explain the production of industrial alcohol from molasses with a flow sheet.

15. Describe the production of Dacron polyester with a flow sheet.

(OR)

Describe the production of butadiene with a flow sheet.

PART—C

10×1=10

- Instructions :** (1) Answer the following question.
(2) The question carries **ten** marks.
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

16. Describe thermal cracking process with a neat sketch.

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