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BOARD DIPLOMA EXAMINATION, (C-20) OCTOBER/NOVEMBER—2023 DCHST - THIRD SEMESTER EXAMINATION

GENERAL CHEMICAL TECHNOLOGY

Time: 3 hours [Total Marks: 80

PART—A

 $3 \times 10 = 30$

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 the manufacturing methods of NaOH.
- **2.** List out the characteristics of a catalyst.
- **3.** Draw a neat sketch of hydrological cycle.
- **4.** List out the applications of DAP.
- **5.** Name the raw materials required for cement manufacturing.
- **6.** Write the manufacturing methods of oxygen.
- **7.** Define calorific value of a fuel.
- **8.** List out the stages in coal formation.
- **9.** Differentiate between polymer and plastic.
- **10.** Define saponification.

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.** With a neat sketch, explain the manufacturing process of sodium carbonate by Solvay process.

(OR)

Write the various industrial applications of HCL.

12. With a neat sketch, explain the manufacturing of urea by total recycle process.

(OR)

Write the advantages and disadvantages of ion exchange process of water purification.

13. Explain about different types of glass.

(OR)

List out various applications of silicon carbide.

14. With a neat sketch, explain about fluidized bed catalytic cracking process.

(OR)

Explain the uses of coal chemicals.

15. With a neat sketch, explain the manufacturing of soap.

(OR)

Explain about fats and oils.

 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.** Why glycerin is separated while manufacturing of soap.

