

B. M. S. College of Engineering, Bengaluru - 560019

Autonomous Institute Affiliated to VTU

September / October 2023 Supplementary Examinations

Programme: B.E.

Branch: Chemical Engineering

Course Code: 19CH7DCCTN

Course: Chemical Technology

Semester: VII

Duration: 3 hrs.

Max Marks: 100

Date: 14.09.2023

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
 2. Missing data, if any, may be suitably assumed.

UNIT - I

1. a) What are the associated and non-associated gases? With a neat flow sheet, **12**
 explain the production of LNG and LPG.
 b) Discuss the petroleum constituents. **08**

OR

2. a) With a neat flowsheet, explain the manufacture of oxygen and nitrogen **10**
 from Linde Frankl's process.
 b) What is coking of coal? Explain the process with chemical reactions. **10**
 Mention the major engineering problems.

UNIT - II

3. a) With a neat flow sheet, explain the manufacture of sulfuric acid. Mention **12**
 major engineering problems.
 b) How modified Solvay process is different from Solvay process? Name the **08**
 chemical manufactured from this process.

UNIT - III

4. a) What are the methods available for the vegetable oil extraction? With a **12**
 neat flow chart explain the mechanical expeller method of extraction, and
 purification steps.

b) Discuss the major engineering problems of sugar industry. **08**

UNIT - IV

5. a) Discuss the types of polyethylene. **04**

b) What are the different methods of pulp production? Discuss the difference. **06**

c) With a neat flow sheet, explain the manufacture of LDPE. **10**

OR

6. a) With a neat flowsheet describe the manufacture of ethyl alcohol. Mention major engineering problems. **14**

b) Differentiate between emulsion and suspension polymerization. **06**

UNIT - V

7. a) With a neat flow sheet, explain the manufacture of urea. What are the major engineering problems encountered? **14**

b) Discuss the constituent of paints along with their functions. **06**
