U.S.N.										

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

Autonomous Institute Affiliated to VTU

February / March 2023 Semester End Main Examinations

Programme: B.E. **Semester: VII**
Branch: Chemical Engineering **Duration: 3 hrs.**
Course Code: 19CH7DCCTN **Max Marks: 100**
Course: Chemical Technology **Date: 20.02.2023**

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)	With a neat process flow diagram, explain the coking of coal.	**10**
	b)	Explain with a neat flow sheet, the conventional Linde -Frankl process for producing low purity oxygen.	**10**

OR

2	a)	With a neat figure, explain the natural gas and LPG production process.	**10**
	b)	Elaborate on the chemical composition and refinery classification of petroleum.	**10**

UNIT – II

3	a)	With the help of a neat process flow diagram, explain the synthesis of ammonia process.	**10**
	b)	Explain with a process flow sheet, production of nitric acid by ammonia oxidation process.	**10**

UNIT - III

4	a)	With a neat flow diagram, explain the hydrogenation of vegetable oil.	**10**
	b)	Explain the soap production process by continuous hydrolysis and saponification process.	**10**

UNIT - IV

5	a)	Explain with a neat process flow diagram, the production of Penicillin by fermentation.	**10**
	b)	With a neat flow sheet, explain the Butadiene-Styrene rubber production process.	**10**

OR

6	a)	Mention the general characteristics of a fermentation process along with the pre-requisites for a successful fermentation process.	**07**
	b)	List the major engineering problems in the fermentation process.	**03**
	c)	With a neat sketch, explain the manufacture of ethyl alcohol by fermentation.	**10**

UNIT – V

7	a)	With a neat flow diagram, explain the process of limestone beneficiation.	**10**
	b)	Explain with a neat process flow sheet, the production of urea from ammonium carbamate.	**10**

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