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: V**
Branch: Chemical Engineering **Duration: 3 hrs.**
Course Code: 19CH5DELC1 **Max Marks: 100**
Course: Petroleum Refining **Date: 09.03.2023**

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

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

UNIT - I

1	a)	Provide the detailed classification of the crude.	**10**
	b)	With the help of neat diagram, explain the process of TBP analysis.	**10**

UNIT - II

2	a)	Elucidate on the additives used for gasoline.	**10**
	b)	Describe Conradson and Ramsbottom method for the estimation of carbon residue of lube oil.	**10**

UNIT - III

3	a)	Discuss the various techniques used for the dehydration of crude.	**12**
	b)	Describe the process of ethanolamine treatment for LPG with a process flow diagram.	**08**

OR

4	a)	Explain the methods to overcome the difficulties in pumping of crudes.	**10**
	b)	Describe the process of liquid sulfur dioxide extraction of aromatics.	**10**

UNIT - IV

5	a)	Explain the commercial cracking catalysts and the reaction variables.	**10**
	b)	What is catalytic reforming? Discuss the reaction variables in catalytic reforming.	**10**

OR

6	a)	Explicate on the fluid catalytic cracking with the help of a process diagram.	**10**
	b)	Discuss the feedstock requirements for the catalytic reforming and the catalytic cracking.	**10**

UNIT - V

7	a)	Describe the Dubb's two coil cracking process with a neat process flow sheet.	**10**
	b)	What is coking? Describe the process of delayed coking with a process flow sheet.	**10**

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