

10/06/2025 BE CHEMICAL SEM-VII C-SCHEME PRT QP CODE: 10080363

[Time: 03 hrs]

[Marks:80]

- N. B.:** (1) Question No. 1 is **Compulsory**.
 (2) Attempt any **THREE** questions out of remaining **FIVE** questions.
 (3) Figures to the **right** indicate **full** marks.
 (4) While explaining the Flow sheets mention Operating Parameters, I/P, O/P etc clearly.

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1. Answer the following questions: [20]
 (a) Origin theory of petroleum.
 (b) Explain Cloude point and smoke point.
 (c) Explain Sweet and Sour crude.
 (d) Write a short note on Biofuel.
2. (a) Explain HF alkylation process in detail and compare it with sulfuric acid alkylation Process. [10]
 (b) Explain different types of Asphalt and explain air blowing of bitumen process [10]
3. (a) Discuss in brief the process of furfural extraction for lubricating oil. What are the advantages of using furfural over phenol as a solvent? [10]
 (b) What the different type of Coking methods. Explain Flexi Coking in detail with a flow diagram. [10]
4. (a) Explain Merox Sweetening process for Gasoline. [10]
 (b) Explain different tower arrangement used for crude distillation unit with a suitable diagram. [10]
5. (a) Explain Propane dewaxing process with neat flow diagram [10]
 (b) Describe the fluidized catalytic cracking (FCC) process with its importance in Refinery. [10]
6. (a) Discuss LPG manufacture in detail with suitable flow diagram. [10]
 (b) Give different testing methods to test quality of gasoline. Explain anyone method in short with a suitable diagram [10]
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