

(03 Hours)

[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) Make **suitable** assumptions wherever **necessary**.

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1. (a) Distinguish between U.O.P Characterization factor and Correlation Index. [05]  
 (b) Differentiate between Pump back Reflux and pump around reflux. [05]  
 (c) Differentiate between Catalytic Cracking and Catalytic Reforming [05]  
 (d) Define and explain the importance of Pour Point and Smoke Point [05]
2. (a) Give different testing methods to test quality of Diesel. Explain in details. [10]  
 (b) Distinguish between ASTM distillation and EFV distillation [10]
3. (a) What is mean by dehydration and desalting of crudes? Explain the process with suitable diagram. [10]  
 (b) Explain different tower arrangements used in crude distillation. [10]
4. (a) Explain Flexi Cracking Process in details with Flow diagram. [10]  
 (b) Explain LPG Production Process in details with Flow diagram. [10]
5. (a) Explain Air Lift Thermoform Process in details with Flow diagram. [10]  
 (b) Explain Furfural extraction Process in details with Flow diagram. [10]
6. Write Notes on Following: [20]  
 (a) Specialty Products (b) Origin Theory of petroleum  
 (c) Air Blowing of Bitumen (d) Polymer Gasoline