

[3 Hours]

[Total Marks: 80]

Instructions to the candidates if any:-

1. Question No 1 is compulsory
2. Attempt any three questions from the remaining five questions
3. Assume suitable data wherever necessary
4. Figures to the right indicate full marks.

Q. No. 1 Explain the following:

- a. Origin and formation of petroleum [05]
- b. Overhead corrosion in distillation unit [05]
- c. Liquid Paraffin [05]
- d. Equilibrium Flash Vaporisation and Engler distillation [05]

- Q. No. 2** a) Explain the methods for dehydration of crudes. [10]
b) Explain the thermal properties of petroleum fractions. [10]

- Q. No. 3** a) Name the treatment methods for gasoline and explain any one of them. [10]
b) Explain Furfural extraction of lubes with the help of neat flow diagram. [10]

- Q. No. 4** a) Explain Two stage distillation Process with neat flow diagram. [10]
b) Explain LPG production process by absorption Technique. [10]

- Q. No.5** a) Explain visbreaking Process in detail.. [10]
b) Explain hydrocracking process in detail with the help of neat flowsheet. [10]

- Q.No.6** Write short notes on the following (**any Four**) [20]
- a. ASTM distillation
 - b. Pumping of waxy crudes
 - c. Atmospheric distillation Unit
 - d. Catalytic cracking and Thermal cracking
 - e. Types and sources of Asphalt
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