

No. 2903-09.

(REVISED COURSE)

(3 Hours)

VR-4827

[ Total Marks : 100

- B. : (1) Question No. 1 is **compulsory**  
 (2) Attempt any **four** questions out of the remaining **six** questions.  
 (3) Figures to the **right** indicate **full** marks,  
 (4) Neat diagrams must be drawn wherever **necessary**.
1. Explain the following :— 20
    - (a) Aniline point (b) Smoke point and fire point
    - (c) Flash point (d) Viscosity index
    - (e) Viscosity gravity constant (f) Cetane number
  2. (a) Discuss in brief the process of phenol extraction process for lubricating oil. What are the advantages of using phenol over furfural? 10  
 (b) Discuss the methods available for the Kerosene Treatment. Explain any one process in detail. 10
  3. (a) Explain Hydro forming process in detail. 10  
 (b) Why isomerisation is carried out? List various isomerisation processes. Write in detail about aluminium Chloride isomerisation process in detail. 10
  4. (a) Give the composition of Asphalt. What is the action of heat on Asphalt? Explain air blowing of bitumen process with proper Flow diagram. 10  
 (b) (i) Distinguish between U.O.P. Characterization factor and Correlation index 10  
 (ii) ASTM distillation and TBP distillation.
  5. (a) Write in detail the process of visbreaking giving operation, conditions and neat Flow Diagram. 10  
 (b) Define and discuss, importance of following :— 10  
 Decoking operation.
  6. (a) Explain Ketone Dew axing process in detail with the diagram. 10  
 (b) Blending, is an important operations in refinery, justify the statement. How effective blends can be produced? Explain briefly a about Gasoline Blending. 10
  7. (a) What are the pollution associated with petrochemical plants how it can be prevented? Explain briefly. 10  
 (b) Write short notes on Selecto Forming Process. 10