

**III B.Tech II Semester Supplementary Examinations,
November/December 2005
PETRO CHEMICAL ENGINEERING
(Chemical Engineering)**

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. What is the composition of petroleum? Explain briefly about physical properties of petroleum? [16]
2. (a) How do you produce industrial heating oils?
(b) Characterize the properties of heating oils. [8+8]
3. Explain naphtha cracking process for the production of lower olefines and discuss the process developments. [16]
4. Discuss in detail the isomerization process and give its advantages and disadvantages. [16]
5. (a) How can you carry the oxidation of pentane?
(b) What are the oxidation products of pentane? [8+8]
6. (a) Why propylene cannot be polymerized to poly propylene through free radical mechanism.
(b) What changes are required in catalyst formulation of composite catalyst for polypropylene production? [8+8]
7. Explain the gas phase oxidation of olefins with oxygen. [16]
8. Describe the isomerisation process of xylenes to p-xylene. [16]
