

7th Semester	RPP7D003	Storage Transportation Of Crude Oil And Natural Gas	L-T-P 3-0-0	3 Credits
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Module I:**(10 Hours)**

Crude oil Trade. Selection of Port Location, Ship Building/Shipyards .Commercial Sourcing of Natural Gas, Different Kinds of Regasification Techniques, Regasification Process & Cold Utilization, Synchronization of Degasified gas and Pipelines, Current Status in India

Module II:**(10 Hours)**

Transportation techniques of crude oil, Pipeline specification, Corrosion Prevention techniques ,Pressure drop, Pumps and Booster station, Wax deposition and prevention, Chemical treatment.

Module III:**(8 Hours)**

Basic Engineering Aspects of Terminal Design, Design of Liquefaction Train, Ship Building/Shipyards, Storage Facilities .Supply& Demand, Variation Gas Field & Aquifers, Technical Qualities and Storage, Properties of storage Reservoir, Rocks & Fluids.

Module IV:**(10 Hours)**

Flow through Storage Reservoir; Inventory Concept, Pressure- Content Hysteresis, Inventory Verification, Gas Flow Performance, Gas Deliverability .Design&Development of Underground Storage Fields: Operation of Storage Fields. Threshold Pressure. Water Influx/Efflux Quantities. Aquifer Equilibrium Pressure. Error and Uncertainty.Gas Storage in Salt Cavity & Caverns: "thermodynamics, Temperature and Pressure Effect. Recent Developments Advanced Storage Techniques, Case Histories.

Books:

- [1] Oilfield Processing: Crude Oil (Oilfield Processing of Petroleum R. Solvay, Pennwell Books 1995.
- [2] Advances in Environmental Control Technology: Storage Tank Paul Clieereinisinoff Gulf Professional Publishing; 1st edition (May 9, 1996)