

B.Tech (Petrochem & Petroleum Refinery Engineering) syllabus for the batch
2017.18

1'PR7,I003

AGF. TRANSPORTATION	OL	CRUDE OIL AND	STOR
NATURAL GAS			3-0-0

Module I:

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:

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

Module III:

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:

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:

- Oilfield Processing: Crude Oil (Oilfield Processing of Petroleum R. Solvay, Pemiwell Books 1995.