DEPARTMENT OF PETROLEUM STUDIES
FACULTY OF ENGINEERING AND TECHNOLOGY

Syllabus for Ph.D. Admission Test 2022-2023 onwards

Section B

Engineering Mathematics

Matrix algebra; ordinary and partial differential equations; numerical techniques, statistics

Process Calculations and Thermodynamics

Steady and unsteady state mass and energy balances, First and Second laws of thermodynamics

Reaction Engineering
Analysis of reaction rate data for single and multiple reactions, non-ideality of reactors, analysis of heterogeneous reactions

Petroleum Processing
Evaluation of crude oil, testing of petroleum products, Crude oil distillation, Secondary and Finishing processes

Petrochemicals
Industry: Overview, Preparation of feedstocks, Petrochemicals from CI, C2, C3, C4 and Cyclic hydrocarbons with unit process involved

Polymer Science and Technology
Basic concepts of polymers, Polymer reaction kinetics, Rheology & Viscoelasticity and Polymer Processing.