

Chemistry AC101

All Modules

Water Technology

Introduction- Water Technology

Specifications of water

Hardness and its determination (EDTA method only)

Alkalinity

Boiler feed water Boiler problems – scale & sludge- Causes and Prevention

Priming & Foaming & Carry Over : causes & prevention

Caustic embitterment & Corrosion: causes & prevention

Water softening processes- Internal & External Treatment

External Treatment: Lime Soda Process

Zeolite or Permutit Process Ion Exchange Process

Internal Treatment: Carbonate, Phosphate conditioning, Colloidal conditioning, Calgon treatment

Water for domestic use

Add a Topic

Fuels

Classification- Fuels

Calorific value of fuel, (gross and net)

Determination of calorific value of fuel

Bomb calorimeter

Solid fuels - Proximate and ultimate analysis

Octane & Cetane No. and its significance

Add a Topic

Lubricants

Introduction: Lubricants, Mechanism of Lubrication

Types of Lubricants

Chemical structure related to Lubrication

Properties of lubricants

Viscosity and Viscosity Index Iodine Value, Aniline Point, Emulsion number

Flash Point, Fire Point, Drop Point, Cloud Point, Pour Point

Selection of Lubricants

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Spectroscopy

Introduction; Principles of spectroscopy, Laws of absorbance

IR : Principle, Instrumentation, Application

UV: Principle, Instrumentation, Applications

NMR: Principle, Instrumentation, Applications

Add a Topic

Corrosion

Corrosion: Introduction, Mechanism of dry and wet corrosion

Types of corrosion-Galvanic, Concentration cell




















Soil & Pitting Intergranular, Waterline, Passivity

Factors influencing corrosion

Corrosion control

Add a Topic

Other Relevant Data

	Hardness and its determination (EDTA method only)		
	Solid fuels - Proximate and ultimate analysis		
	Corrosion: Introduction, Mechanism of dry and wet corrosion		
	Factors influencing corrosion		
	Chemical structure related to Lubrication		
	Flash Point, Fire Point, Drop Point, Cloud Point, Pour Point		
	Solid fuels - Proximate and ultimate analysis	