

Syllabus NE-04

Junior Engineer/Mechanical

General Ability(45 Questions)

- Quantitative Aptitude
- Reasoning
- Analytical Ability
- General Knowledge
- General Studies

Subject(45 Questions)

- IC Engine Combustion.
- Engineering Mechanics and Strength of Materials.
- Thermal Engineering.
- Properties of Pure Substances.
- Theory of Machines and Machine Design.
- 1st and 2nd Law of Thermodynamics.
- Air standard Cycles for IC Engines.
- IC Engine Performance.
- Principle of a Refrigeration Plant.
- IC Engine Cooling & Lubrication.
- Rankine cycle of steam.
- Boilers; Classification Specification; Fittings & Accessories.
- Air Compressors & their cycles.
- Properties & Classification of Fluid.
- Refrigeration cycles.
- Nozzles & Steam Turbines.
- Fluid Mechanics & Machinery.
- Production Engineering.
- Fluid Statics.
- Measurement of Fluid Pressure.
- Fluid Kinematics.
- Measurement of Flow rate Basic Principles.
- Hydraulic Turbines.
- Dynamics of ideal fluids.
- Centrifugal Pumps.
- Classification of Steels