

RTO EXAM SYLLABUS !!!

Fundamentals : Force, moment, couple, resultant of forces, Equilibrium of forces, friction and friction angle, Coulomb friction, rolling friction and belt friction, frictional torque in pivot and Collar bearings, MI, Work and energy

Strength of Materials : Normal and Shear stresses, Stress-strain diagram, thermal stresses, shear force and bending moment diagrams, bending stresses in solid, hollow and built up sections, deflection of beams, shear stress distribution, strain energy, torsion of bars, shafts and helical springs, Deflection of beam under different conditions, impact load

Theory of Machines : Kinematic link, pair, chain, Mechanism and structure, degrees of freedom, Cams, Gear trains, fluctuation of speed and energy in flywheel, Gyroscope, Balancing of rigid rotor, Single and multi-cylinder engines and V-engines, belts and chain drives, Hydrodynamic bearing

Engineering Materials : Crystalline structure of metals and alloys, defects in crystalline materials, Iron-Carbon equilibrium diagram, plain carbon steel, alloy steel, cast iron and types, Brass and Bronze, Aluminum, lead, Tin, Zinc- their properties and applications, Plastic deformation, bearing materials, plastics, ceramics, composite materials, Heat treatment of steels