ME 260 topics for the MS Comprehensive Exam

1. Fundamentals of Tension, Bending, Shear, and Torsion stress calculations
2. Stress-Strain relationship, Principal stresses (2D & 3D), Mohr’s Circle (2D)
3. Equilibrium and Compatibility equations, Airy Stress, concepts, and their applications in stress analysis
4. Stress, Strain, Deflection analysis of a beam or similar structure and Superposition method
5. Theory of Elasticity
7. Thermal Stress Analysis
8. Fundamentals of Time-dependent Creep and Relaxation Analysis

The comprehensive exam is closed books and closed notes. A sheet of relevant key equations will be provided with the exam questions.