ARCH 614. Study Guide for Quiz 3

This guide is not providing “answers” for the conceptual questions. It is a list of topical concepts and their application you should be familiar with. It is an aid to help prepare for the quiz.

Covers material of Lectures 6 & 7

☐ Beam behavior (bending, shear, deflection, torsion, bearing)
☐ Beam stresses
☐ Prestressing and post-tensioning
☐ Beam styles
☐ Internal shear, axial force & bending moment
☐ Concentrated loads
☐ Distributed loads – uniform / non-uniform
☐ Beam supports
☐ Statically Determinate vs. Indeterminate
☐ Inflection point
☐ w vs. W
☐ Equivalent center of load area
☐ The Equilibrium Method
☐ The Semigraphical Method
☐ Areas under a curve and change
☐ Effect of forces on shear diagram
☐ Effect of moments on moment diagram
☐ Location of zero shear (x) and relation to maximum moment
☐ Slope relationships with integration
☐ Use of Beam Diagrams and Formulas