



CAD 1 Post Test Study Guide

- 1) General Engineering
 - a. CAD
 - b. Technology
 - c. Engineers
 - d. Strongest shape
- 2) Maglev
 - a. What does Maglev stand for?
 - b. Top Speed
 - c. Friction?
 - d. Where is most popular located
 - e. Where is first located?
 - f. Parts of an electromagnet
 - g. How it Maglev Eco Friendly?
- 3) Bridges
 - a. How do bridges work?
 - b. Live load vs dead load
 - c. Forces
 - i. Tension
 - ii. Compression
 - iii. Torsion
 - iv. Twisting
 - v. Bending
 - vi. Plastic/Elastic Deformation
 - vii. ...
 - d. Bridge types
 - i. Truss
 - ii. Beam
 - iii. Arch
 - iv. Suspension
 - v. Cable Stay
 - vi. Cantilever
- 4) Towers
 - a. Number of earthquakes per day
 - b. Vertical components
 - c. Horizontal components

- d. Foundation
 - e. Richter scale
 - f. Mercalli scale
 - g. Building codes
 - h. Forces
 - i. Tallest building
 - j. History
 - k. Major innovations
- 5) Planes
- a. First to fly plane
 - b. Yaw, Pitch, Roll
 - c. Airfoil
 - d. Center of gravity
- 6) Safety (band saw + drill press)
- a. Safety guard
 - b. Safe distance from blade
 - c. Relief cuts
 - d. What to do when drilling an object that could spin
 - e. Steps before using machines
- 7) AutoCAD
- a. Multiview parts
 - b. Section views
 - c. Isometrics
 - d. Commands
 - i. Line
 - ii. Circle
 - iii. Trim
 - iv. Chamfer
 - v. Trim
 - vi. Fillet
 - vii. Object snap
 - viii. Polar Array
 - ix. Ortho
 - x. ...
- 8) 7 System of technology
- 9) Design Process