Key Concepts for Test 12

Sections 9.1-9.2 & 10.1-10.7 (Pages 226-233 & 255-267) of Textbook

1. State the two conditions required for an object to be in equilibrium (words & equations)

2. State the definition of pressure (words & equation)

3. State the definition of density (words & equation)

4. State the definition of specific density (words & equation)

5. State Pascal's Principle in words

6. State Archimedes' Principle in words

7. State Pascal's Law (words & equation)

8. Be able to determine if an object floats or sinks & the percent volume submerged

9. Be able to determine the buoyant force upon an object

10. Be able to determine the pressure for a given depth in a fluid

11. Be able to apply Pascal's Principle to solve a problem involving a hydraulic jack.

12. Be able to use the conditions of equilibrium to determine the magnitude, direction, and location of unknown forces.

13. Be able to draw proper free body diagrams

14. Be able to state the definition of Torque (words and equation) and be able to find the magnitude and direction of a Torque.

Textbook Questions: Chapter 10 #1-16

Past Homework Problems: Homework 18 problems 4 - 7, Homework 19 problems 1-6

Previous Problems: Examples in textbook and those covered in class lectures and class problem sessions and on the website for "Statics & Fluids Modules"

- These should all be answered under test conditions (notes and textbook closed)