

AGEN 120
Water Supply and Sanitation
Spring 2011

First Examination Study Guide

Prepared By

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- Understand the importance of water
- Define the two broad sources of water
- Understand the importance of water as a renewable resource
- Understand the various components of the hydrologic cycle
- Understand how humans intervene in the hydrologic cycle, thereby generating artificial water cycles
- Know the basic units for length, mass, force, pressure, work, and power in the English Gravitational system of units
- Understand the concept of water pressure in pipe systems and how pressure can be measured
- Understand the different approaches to problem solving as discussed in class
- Know the difference between kinetic, potential, and pressure energies
- Convert between pressure in psi and head in feet (and vice versa)
- Know how to work with pressure and head under static and dynamic conditions
- Understand the effect of pipe material, pipe diameter, pipe length, and flow velocity on head losses due to friction
- Know the different types of metal pipes presented in the laboratory, their primary characteristics, common uses in plumbing, and fitting methods
- Know the different types of thermoplastic pipes presented in the laboratory, their primary characteristics, common uses in plumbing, and methods of fitting
- Understand the system you follow in naming any given pipe fitting
- Know the names of the standard pipe fittings introduced in the laboratory
- Know the approaches you follow in assembling pipes and fittings of different materials
- Know the common equipment/tools used in assembling copper, PVC, and galvanized steel pipes and fittings as demonstrated in the laboratory