

## Domestic Wastewater Treatment Final Exam

1. Treatment capacity is based on the *design population*, which is determined by the:
  - a. number of housing units
  - b. resident and non-resident populations
  - c. total plumbing fixtures
  - d. capacity of the sewer structures
2. With consideration of *design flows*, the design of process elements in a wastewater treatment plant is based on the:
  - a. actual average wastewater hourly flow
  - b. design population
  - c. peak usage
  - d. daily flow
3. With regards to *location*, for onsite wastewater treatment systems, \_\_\_\_\_ are major criteria.
  - a. flora and fauna
  - b. local climate characteristics
  - c. property lines
  - d. rainfall and soil characteristics
4. In terms of *pretreatment*, preliminary treatment of wastewater includes screening, grinding, grit removal, flotation, equalization and:
  - a. sublimation
  - b. flocculation
  - c. efflocation
  - d. nitrification
5. *Flow equalization* of at least \_\_\_\_ percent of the facility's peak hydraulic capacity must be provided for all seasonal facilities and all other facilities with fluctuations in influent flow which may adversely affect the performance of the wastewater treatment system.
  - a. 15
  - b. 100
  - c. 25
  - d. 75

6. *Conventional onsite wastewater treatment systems* consist of a septic tank system with a tank, distribution box and \_\_\_\_\_ lines in a drain field.
- flocculation
  - sublimation
  - nitrification
  - efflocation
7. Wastewater treatment systems less than \_\_\_\_\_ gallons per day are considered *small treatment systems*.
- 0.2 million
  - 0.8 million
  - 1.0 million
  - 0.5 million
8. With respect to *wastewater treatment ponds/lagoons*, all treatment/storage lagoons/ponds must have at least \_\_\_\_\_ of freeboard.
- two feet
  - seven feet
  - eleven feet
  - five feet
9. \_\_\_\_\_ must not be used for *disinfection* for a small wastewater treatment system.
- Ammonium hydroxide gas
  - Sodium triphosphate gas
  - Ultra violet (UV)
  - Chlorine gas
10. *Nondischarge systems* for groundwater recharge include surface irrigation, high rate infiltration facilities, and:
- septic tank systems
  - injection wells
  - package treatment systems
  - non-ground absorption systems