



1. What is the preferred type of moment connection for pipe rack frames?
 - a. Field welded CJP flanges and shear plate web connections
 - b. Bolted end plates
 - c. Bolted flange plates
 - d. Partially restrained flange angle connections

2. For a typical two column transverse frame without a diaphragm system in seismic design category D, the appropriate redundancy factor is
 - a. 0.9
 - b. 1.0
 - c. 1.3
 - d. The sum of the above

3. Sustained thermal loads include consideration of which of the following
 - a. The forcing frequency
 - b. Piping guide and anchor forces
 - c. Thermal expansion or contraction of the structure from changes in ambient temperature
 - d. b and c

4. Which of the following is provided by the machine manufacturer?
 - a. The natural frequency of the system
 - b. The machine operating speed
 - c. The damping ratio
 - d. The dynamic magnification factor

5. For the design of steel-framed structures supporting vibrating machines, the damping ratio is usually in this range:
 - a. 0.01 to 0.03
 - b. 0.080 to 0.12
 - c. 0.13 to 0.20
 - d. 0.25 to 0.40

6. The dynamic magnification factor is dependent on...
 - a. The forcing frequency
 - b. The natural frequency of the support structure
 - c. The damping ratio
 - d. a, b and c



Topics on Industrial Building Design and Design of Non-Building Structures

Quiz for Session 7: Non-Building Structures 1 - August 4, 2020

Due: September 1, 8:00 a.m. EDT – Submit through the online form

7. For occupied structures, appropriate acceptance criteria should consider...
 - a. The risk of damage to the structure, non-structural elements and the machine
 - b. Occupant comfort
 - c. Production quality and proper machine operation
 - d. a, b and c

8. Regarding industrial rack structures, what percentage of pallet storage loads is considered for the seismic mass of the structure?
 - a. 50%
 - b. 67%
 - c. 75%
 - d. 100%

9. True or False: The use of the RMI Specification is mandated for the design of storage racks constructed of steel.
 - a. True
 - b. False

10. True or False: Most any soil will prevent buckling of steel piles as long as there is no earthquake.
 - a. True
 - b. False

