



- 1) Pick the appropriate risk categories for a hospital, coffee shop, emergency response center and hotel with large ballroom:
  - a. Risk Category III, I, IV, III
  - b. Risk Category IV, II, IV, II
  - c. Risk Category III, II, IV, III
  - d. Risk Category IV, II, IV, III
  
- 2) Which is most correct?
  - a. Seismic Design Category affects limitations on the seismic-force-resisting systems.
  - b. Seismic Design Category affects building period.
  - c. Seismic Design Category affects the return period of the  $MCE_r$ .
  
- 3) Which of the following depend on the seismic-force-resisting system selected?
  - a. Approximate building period
  - b. Design base shear
  - c. Overstrength factor
  - d. Displacement amplification factor
  - e. Height limit
  - f. All of the above
  - g. None of the above
  
- 4) Which is most correct?
  - a. In SDC B and C seismic design is not required.
  - b. In SDC B and C design for seismic forces is required, but no other requirements apply.
  - c. In SDC B and C fewer limitations and requirements apply than in SDC D.
  
- 5) Which best describes the basic seismic performance objective of ASCE 7?
  - a. Limited building damage likely during the building lifetime
  - b. Low probability of collapse in a very rare seismic event
  - c. Limited repair costs after a major seismic event



## Seismic Design in Steel

Quiz for Session 4: Seismic Design Concepts – Design – March 12, 2018

Due: April 2, 8:00 a.m. EDT – Submit through the online form

- 6) Which is the purpose of the redundancy factor?
  - a. To ensure adequate ductility
  - b. To prevent column failure
  - c. To improve reliability of non-redundant systems
  
- 7) Which is the appropriate size of a seismic separation between two portions of a structure independently supported?
  - a. Twice the larger design story drift
  - b. The sum of the design story drifts
  - c. The difference between the design story drifts
  - d. The square root of the sum of the squares (SRSS) of the design story drifts
  - e. The sum of 150% of the design story drifts amplified by  $C_d/R$ .
  
- 8) Which documents address seismic design?
  - a. ASCE 7
  - b. AISC 341
  - c. AISC 358
  - d. AWS D1.8
  - e. All of the above
  
- 9) Which document addresses drift limits?
  - a. ASCE 7
  - b. AISC 341
  - c. AISC 358
  - d. AWS D1.8
  
- 10) Which is most correct?
  - a. The R factor represents system ductility.
  - b. The R factor represents building importance.



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