

## Seismic Design in Steel

Quiz for Session 5: Seismic Design Concepts – Application: Planning the Seismic Design – March 19, 2018

Due: April 9, 8:00 a.m. EDT – Submit through the online form



- 1) True or false? The period used to determine the required base shear strength is limited to ensure that the required base shear strength is not underestimated.
  - a) True
  - b) False
  
- 2) Which systems are permissible for this SDC D building?
  - a) Special Moment Frames
  - b) Special Concentrically Braced Frames
  - c) Eccentrically Braced Frames
  - d) Buckling-Restrained Braced Frames
  - e) All of the above
  - f) None of the above
  
- 3) Which is most correct?
  - a) Supplement S1 to F1554 is a good idea to provide the option of welding to repair damaged anchor rods.
  - b) Supplement S1 to F1554 is a good idea to provide higher strength anchor rods.
  
- 4) Which is most correct?
  - a) If seismic base shear governs wind loading may be ignored.
  - b) If seismic base shear governs wind loading may be checked after frame design and may govern for light cladding and similar elements.
  
- 5) For a building in Seismic Design Category D, E, or F, if an extreme torsional irregularity is triggered by the removal of one element...(pick one)
  - a) the torsional amplification factor is 3.0.
  - b) the redundancy factor is 1.3.
  
- 6) Which is most correct?
  - a) In SDC D, AISC 341 provisions must be followed if the seismic base shear governs over wind strength.
  - b) In SDC D, AISC 341 provisions must be followed if the required stiffness to meet seismic drift limits is greater than the stiffness required to meet wind serviceability requirements.
  - c) In SDC D, AISC 341 provisions must be followed.



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- 7) OCBF are not used in the design because...(pick one)
  - a) OCBF are not permitted for a building of this type in SDC D.
  - b) OCBF are not an economical system.
  
- 8) Which special requirements apply to the seismic load resisting system of the given design?
  - a) Weld CVN toughness
  - b) Bolt pretension
  - c) Bolt Class A faying surface
  - d) All of the above
  
- 9) Which is most correct?
  - a) Snow is not considered in the effective seismic weight.
  - b) Light snow loading need not be considered in the effective seismic weight.
  
- 10) Which is most correct?
  - a) Storage loads are not considered in the effective seismic weight.
  - b) Small storage loads need not be considered in the effective seismic weight.



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