Vertical Bracing Connections Session 6: The Corner Connection (seismic)
May 10, 2022
To be submitted by 8:00 a.m. EDT June 7, 2022 – Submit through online form

AISC Night School

1. Which is a requirement for SCBF connection design?
    a. Resist the expected brace strength in tension
    b. Resist the expected brace strength in compression
    c. Accommodate brace buckling rotation or fixed-end moment
    d. All of the above

2. True or False: Using the workpoint-to-workpoint brace length will underestimate the compression that the connection might experience
    a. True
    b. False

3. True or False: SCBF braces are stronger in compression than in tension.
    a. True
    b. False

4. The R_y factor represents
    a. Second-order effects
    b. Material ductility
    c. Material overstrength

5. Reinforcement of slotted SCBF braces
    a. Must run the entire connection length
    b. Need only extend the length of the open slot
    c. Must be extend beyond each end of the open slot long enough to develop the reinforcement

6. True or False: When a SCBF brace buckles, it forms a plastic hinge at its mid-length.
    a. True
    b. False

7. True or False: BRB braces are stronger in compression than in tension.
    a. True
    b. False

8. True or False: For BRBF gusset design, stiffeners aid brace stability but are less practical because they interfere with erection.
    a. True
    b. False

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9. Which of these is a means of accommodating frame flexure in seismic braced frames?
    a. Provide a rigid connection capable of resisting the beam flexural strength
    b. Provide an Ordinary Moment Frame connection
    c. Provide a connection that can accommodate 0.025 radians of relative beam-column rotation
    d. All of the above

10. When using a rigid connection at a gusset plate the design should consider
    a. The maximum brace force with zero moment
    b. The maximum moment with zero brace force
    c. The maximum brace force with the maximum moment
    d. All of the above