1. When a slab cantilever resolves the eccentricity acting as a cantilever beam,…
    a. the slab resists facade anchor forces and delivers a vertical force to the beam.
    b. the slab resists facade anchor forces and delivers a horizontal force to the beam.
    c. the slab delivers torsion to the spandrel beam.
    d. the spandrel beam should be designed for torsion from the eccentricity.

2. What considerations are required when designing a reinforced concrete slab overhang?
    a. Orientation of the deck
    b. Slab top bar development length beyond the centerline of spandrel beam
    c. Slab bottom bar development length beyond the centerline of the spandrel beam
    d. Both A & B

3. When the composite metal deck is perpendicular to the spandrel beam,…
    a. the effective depth of the slab for cantilever bending is measured from the top of spandrel beam flange to the center of reinforcing steel.
    b. the effective width of the compression block in the slab is the full width of the slab.
    c. the effective width of the compression block in the slab is the width of the low deck flutes.
    d. Both A & C

4. When the composite metal deck is parallel to the spandrel beam,…
    a. the effective depth of the slab for cantilever bending is measured from the top of spandrel beam flange to the center of reinforcing steel.
    b. the effective depth of the slab for cantilever bending is measured from the top of the high flutes of the deck to the center of reinforcing steel.
    c. the effective width of the compression block in the slab is width of the low deck flutes.
    d. a bent plate should always be used to form the slab edge.

5. True or False: When the ends of the composite floor deck flutes are closed by a continuous closure strip, the shear capacity should be based on the full thickness of the slab less the top cover to the reinforcing bars.
    a. True
    b. False

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6. Which is not a limitation to using light gage metal pour stops at slab edges?
   a. Light gage pour stops are difficult to erect.
   b. Overhangs are limited to approximately 12 in. in length beyond the tip of the spandrel beam flange.
   c. Pour stops are generally not adequate for welded façade attachments.
   d. Pour stops require support at columns and corners.

7. Which of the following statements is false?
   a. The flange width of a composite spandrel beam should be wide enough to accommodate tolerances in the deck placement, the pour stop, and the shear stud connectors.
   b. W10x12 sections are usually not adequate as composite spandrel beams.
   c. Headed shear studs should always be shop-welded to the vertical leg of a bent plate pour stop.
   d. Welded deformed bar anchors may be preferable to welded shear stud connectors to develop horizontal forces into the floor slab.

8. Which of the following is a common approach to mitigating the torsion in a spandrel beam?
   a. Add kickers
   b. Add roll beams perpendicular to the spandrel beam
   c. Requiring the specialty structural engineer to use rigid brackets and ignore the torsion
   d. Both A & B

9. When designing spandrel beams with roll beams, which of the following is incorrect?
   a. The roll beam imposes a vertical reaction on the spandrel beam that should be considered in the design.
   b. The connection between the roll beam and the spandrel beam should be designed to resist the torsional moment in the spandrel beam.
   c. Using roll beams eliminates the need to design the spandrel beam for torsion when the spandrel beam supports a continuous, uniform facade load.
   d. The roll beam can be depressed below the typical top of steel elevation to eliminate coping and provide a larger moment arm between the top and bottom bolts in the connection.

10. Which of the following should be considered in the design of wide flange spandrel beams (assuming the slab is NOT designed to resolve the eccentricity)?
    a. Warping normal stresses caused by torsion
    b. Shear stresses caused by torsion
    c. Projected translations that result from torsional rotation
    d. A, B, and C