



1. For which of the following boundary conditions does the theoretical effective length factor match the recommended effective length factor in AISC 360-16 Table C-A-7.1?
  - a. Fixed-fixed
  - b. Fixed-pinned
  - c. Pinned-pinned
  - d. None of the above
  
2. In the discussion of effective length factors for the various conditions in AISC 360-16 Table C-A-7.1, what analysis parameter was adjusted for each case of the table to get the same applied load ratio (ALR) for all cases?
  - a. Cross-sectional area
  - b. Column length
  - c. Modulus of elasticity
  - d. Radius of gyration
  
3. What column size was used in the presentation of Learning Module 2?
  - a. W14x53
  - b. W14x90
  - c. W14x145
  - d. W14x342
  
4. Which of the following is correct about the analysis results of minor axis compressive strength compared to the AISC curve?
  - a. The elastic critical analysis (LBA) predicts lower strength than the AISC curve.
  - b. The inelastic critical analysis predicts lower strength than the AISC curve.
  - c. The GMNIA analysis predicts lower strength than the AISC curve.
  - d. None of the above
  
5. For the  $L/r = 190$  column, was the column strength affected more by consideration of partial yielding or by consideration of an  $L/1000$  imperfection?
  - a. Partial yielding
  - b.  $L/1000$  imperfection
  - c. There was no discernible difference between the two.
  - d. It depends on which axis is being considered.
  
6. For the  $L/r = 15$  column, was the column strength affected more by consideration of partial yielding or by consideration of an  $L/1000$  imperfection?
  - a. Partial yielding
  - b.  $L/1000$  imperfection
  - c. There was no discernible difference between the two.
  - d. It depends on which axis is being considered.





7. For a given  $L/r$ , did the analysis results show a greater compressive strength for major axis flexural buckling or minor axis flexural buckling?
  - a. Major axis flexural buckling
  - b. Minor axis flexural buckling
  - c. The compressive strength for both is the same.
  - d. It depends on the given  $L/r$ .
  
8. True or False: For the case study presented, it was determined that the load acting on the shore that collapsed exceeded the shore's allowable load, given by the manufacturer, by 50 percent.
  - a. True
  - b. False
  
9. For the case study presented, which of the following is NOT a feature of the shore being analyzed?
  - a. Varying cross section
  - b. Included two extensions
  - c. Made of aluminum
  - d.  $L/r$  of 250
  
10. For the case study presented, what was the solution for allowing the project to move forward?
  - a. The shores were braced.
  - b. Custom shoring towers were built.
  - c. The shore load was limited to a lower level based on the study.
  - d. The structural framing system was redesigned to avoid the need to shore.

