LOOKING FOR A CHALLENGE? Modern Steel Construction’s monthly Steel Quiz tests your knowledge of steel design and construction. Most answers can be found in the 2005 Specification for Structural Steel Buildings, available as a free download from AISc’s website, www.aisc.org/2005spec. Where appropriate, other industry standards are also referenced.

1. True/False: Curved steel members must be designed differently because of the effects of the bending process.

2. Why are minimum radii specified for cold bending of plates?

3. Is there a tolerance specified in the AISC Code of Standard Practice for the shape of a curved member?

4. What is the limit in the AISC Specification on the surface roughness profile of thermally cut bolt holes?
   (a) 1,000 μin.
   (b) 2,000 μin.
   (c) 3,000 μin.
   (d) Both (a) and (b) are correct

5. True/False: The 2005 AISC Specification includes information on design and detailing of galvanized members.

6. What minimum radius is recommended in the AISC Manual for camber induced by cold bending in members up to nominal depth of 30 in.?

7. Where are tolerances for manufacturing HSS and Pipe given?
   (a) ASTM A6 for both HSS and Pipe
   (b) ASTM A500 for both HSS and Pipe
   (c) ASTM A500 for HSS and ASTM A53 for Pipe
   (d) ASTM A53 for both HSS and Pipe

8. Steel erection follows the proper installation or establishment of several items by the Owner’s Designated Representative for construction per Section 7 of the AISC Code of Standard Practice. What are several common examples?

9. Which of the following can be a cause of brittle fracture?
   (a) Triaxial state-of-stress
   (b) Strain aging
   (c) Increased strain rate
   (d) All of the above

10. True/False: Appendix 4 in the AISC Specification addresses design for applications involving long-duration loading at elevated temperatures.

   TURN TO PAGE 14 FOR ANSWERS

Anyone is welcome to submit questions and answers for Steel Quiz. If you are interested in submitting one question or an entire quiz, contact AISc’s Steel Solutions Center at 866.ASK.AISC or at solutions@aisc.org.