STEEL QUIZ, a monthly feature in Modern Steel Construction, allows you to test your knowledge of steel design and construction. Unless otherwise noted, all answers can be found in the LRFD Manual of Steel Construction. To receive a copy of the 1997 AISC Publications List, please call 800/644-2400 or fax 312/670-5403.

QUESTIONS:

1. Name the standards for tolerances in steel construction.

2. Which limit states may govern the design of a steel beam?

3. What is the LRFD equivalent of $C_r$?

4. When A36 steel was introduced in the 1960s
   a. What were the commonly used structural steels for buildings and bridges?
   b. What were their specified minimum yield points?

5. Where can one find the most comprehensive information on painting of structural steel?

6. When concentrated loads are applied to steel beams or columns
   a. Which limit states may apply?
   b. Where in the AISC Specifications are there design provisions?

7. Are ASTM A307 bolts suitable for welding?

8. Name the three model building codes currently in use in the U.S. and the new model code scheduled for initial publication in the year 2000?

9. All beams need to be checked for the limit state of lateral-torsional buckling. True or False?

10. Serviceability is not covered in the AISC Specification. True or False?

Answers on page 14
A307 bolts are normally not suitable for welding. However, this can be corrected by specifying Supplementary Requirement S1 in ASTM A307-94, which provides the option of a chemical composition or carbon equivalent formula to insure weldability.


False. Lateral-torsional buckling is only applicable to beams bending about their major axis. Consequently, lateral bracing is not required for members loaded through their shear center and bending about their weak axis.

False. Serviceability design considerations are the subject of Chap. L of both the LRFD and ASD Specifications.