1. Where in the AISC Specification for Structural Steel Buildings is the topic of fatigue covered?
   a. Chapter A  
   b. Chapter J  
   c. Chapter 3  
   d. Appendix 3

2. True or False: A structural steel with a minimum yield stress $F_y = 50$ ksi, has significantly improved fatigue performance as compared to a structural steel with an $F_y = 36$ ksi.  
   a. True  
   b. False

3. True or False: Steel elements whose stress ranges are not in tension need not be reviewed for fatigue.  
   a. True  
   b. False

4. True or false: AISC 360-16 Appendix 3 is applicable to structures experiencing corrosion fatigue.  
   a. True  
   b. False

5. Which of the following gives the dominant stress variables for welded details with respect to fatigue?  
   a. Stress range and maximum tensile stress  
   b. Stress range and material specified minimum yield stress  
   c. Maximum tensile stress and notch severity  
   d. Stress range and notch severity

6. What is the threshold allowable stress range?  
   a. Maximum stress range demand on a member  
   b. Maximum stress range allowed for a member  
   c. Stress range where indefinite design life of the member will occur  
   d. Stress range considered for low-cycle fatigue
7. What is the stress category for fillet welds loaded transverse to the direction of stress?
   a. A and B
   b. B and C
   c. C and C'
   d. C' and G
   e. C” and C

8. The maximum permitted stress due to peak cyclic loads is:
   a. 0.6Fy
   b. 0.66Fy
   c. 0.9Fy
   d. Fy

9. AISC 360-16 Appendix 3 is applicable when the number of full cycles exceeds:
   a. 10,000 cycles
   b. 15,000 cycles
   c. 20,000 cycles
   d. 30,000 cycles

10. Which of the following are “stress risers” for fatigue behavior?
    a. Surface discontinuity
    b. Weld Flaw
    c. Hole
    d. Instability
    e. Geometry
    f. High seismic forces
    g. A, B, and C only
    h. A, B, C and E only