



1. Which of the following issues causes coarse grain structure and lower notch toughness in the interior portions of the cross sections of heavy shapes and plates?
 - a. Segregation
 - b. Slower cooling
 - c. Reduced rolling
 - d. All of the above

2. What is the flange thickness beyond which an ASTM A6/A6M hot-rolled shape is considered a rolled heavy shape, according to AISC 360-16?
 - a. 1 in.
 - b. 2 in.
 - c. 3 in.
 - d. 5 in.

3. True or False: Weld access holes in “jumbo” sections, made in accordance with the geometrical requirements of the AISC *Specification*, may result in holes that are too small to provide access for welding.
 - a. True
 - b. False

4. True or False: A stepped connection is the preferred type of HSS-to-HSS connections when the main member is a rectangular HSS with a large corner radius.
 - a. True
 - b. False

5. Which of the following is the preferred HSS truss connection type from the perspective of constructability and inspection?
 - a. Branched
 - b. Flushed
 - c. Gapped
 - d. Overlapped



Fundamentals of Welding and Bolting

Quiz for Session 3: Special Welding Applications – October 18, 2021

Due: November 15, 8:00 a.m. EST – Submit through the online form

6. Which of the following categories, from AISC 303-16, apply to showcase elements?
 - a. AESS 1
 - b. AESS 4
 - c. SSS
 - d. None of the above

7. Which of the following requirements applies to an AESS mock-up?
 - a. Bright lighting shall be used
 - b. Shall be viewed for a distance less than 10 ft
 - c. Shall not be coated
 - d. None of the above

8. According to the speaker, which of the following is a myth about field welding?
 - a. The choice of shop welding versus field welding is primarily an issue of cost
 - b. Codes do not apply to field welding
 - c. Out-of-position welding may be needed in the field
 - d. All of the above

9. Which of the following is incorrect about the modulus of elasticity of steel at elevated temperatures?
 - a. Modulus of elasticity is reduced at lower elevated temperatures than tensile strength and yield strength
 - b. Modulus of elasticity is generally unaffected for temperatures up to 650 degrees Fahrenheit
 - c. Modulus of elasticity approaches zero at very high temperatures

10. Which of the following do NOT occur as a result of cold working and strain ageing of steel?
 - a. The yield and tensile strengths of the steel decrease
 - b. The ductility of the steel decreases
 - c. The notch toughness of the steel decreases
 - d. None of the above – all of these occur as a result of cold working and strain ageing



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