



1. The “founder” of statics is generally agreed to be:
 - a. Archimedes
 - b. da Vinci
 - c. Galileo
 - d. Hooke
 - e. Euler

2. The maximum number of unknown reactions for a determinate beam is:
 - a. 3
 - b. 4
 - c. 6
 - d. Depends on available condition equations
 - e. None of these are true

3. Which of the following are true regarding stability and determinacy?
 - a. A stable structure must be determinate.
 - b. An indeterminate structure must be stable.
 - c. In the real world there are many unstable structures.
 - d. It is preferable that structures be stable and determinate.
 - e. None of the above are true.

4. For superposition to be applicable:
 - a. Structures must behave elastically.
 - b. Structures must follow small deflection theory.
 - c. The material must be steel.
 - d. Both a and b.
 - e. None of these are true.



Classical Methods of Structural Analysis

Quiz for Session 1: Introduction and Basic Concepts– June 3, 2019

Due: June 24, 8:00 a.m. EDT – Submit through the online form

5. AISC 360-16 Section C1 requires that several load effects be considered in an analysis. Which of the following is not one of those requirements?
- Torsional deformations
 - 2nd-order effects
 - Residual stresses
 - Out-of-plumbness
 - All of these must be considered.
6. For the relationship between load, shear, and moment, which of the following is true?
- The value of the shear is the slope of the loading diagram.
 - The slope of the moment diagram is the value of the shear.
 - The change in moment between A & B is the area under the load diagram between A & B.
 - The area under the moment diagram is the value of the shear.
 - The value of the load is the slope of the moment diagram.
7. Which of the following is true regarding influence lines?
- They are only useful with moving loads.
 - They have no application for building structures.
 - They are helpful in determining where to load a structure for maximum influence.
 - They are essential for determining reactions.
 - None of these are true.
8. For a second-order analysis, which of the following are true?
- Equilibrium equations are written about the deformed geometry.
 - Deflections influence analysis results.
 - Axial load impacts the moment in beam-columns.
 - All of the above
 - None of the above
9. Which of the following describe a linear analysis?
- Load effect is proportional to load magnitude.
 - Materials behave elastically.
 - Superposition is valid.
 - All of the above
 - None of the above



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10. According to A. R. Dykes, which of the following describes structural engineering?
- We don't wholly understand the materials used.
 - We can't precisely analyze the structures we build.
 - We really can't assess the forces involved.
 - All of the above
 - None of the above



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