

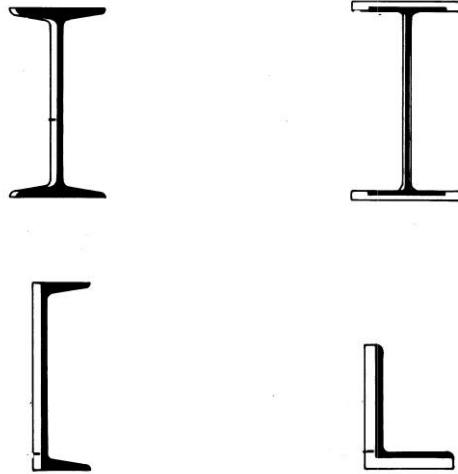
UNIVERSITY of NOTRE DAME
School of Architecture

BUILDING TECHNOLOGY I / ARCH 20411 & ARCH 60411

October 25, 2012

QUIZ #5

1. Please name the standard structural steel shapes below (4 points):



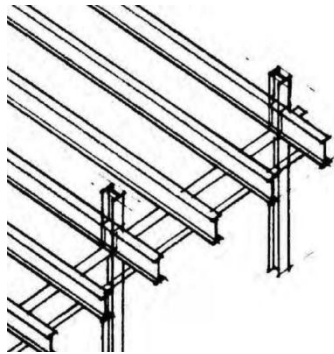
2. A framing member designated by the letter “S” refers to which of the following standard structural steel shapes:
- Wide Flange
 - Channel
 - American Standard
 - Structural Tee
3. In the sample designation **W12x64**, 12 describes the _____; 64 is the _____ (2 points).
- Weight of the member in kilograms
 - Spanning capability of the member in feet
 - Nominal depth of the member in inches
 - Actual depth of the web in inches
 - Weight of the member in pounds per linear foot
 - Nominal width of the flange in inches
 - Rate of deflection of the member in millimeters
 - None of the above
4. Structural steel framing is most like what other kind of post-and-lintel framing system:
_____.

5. TRUE or FALSE: A Wide flange member with a width that is nearly equal to its depth would most commonly be used as a beam or girder.
6. A Joist is a spanning member that is most commonly employed:
 - a. To support a floor deck
 - b. Over short spans, like over doors or window openings
 - c. To support a roof deck
 - d. Over long spans
 - e. All but B

7. Please label the parts of the steel shape below (2 points):



8. TRUE or FALSE: Because structural steel is impervious to fire, it is considered to be a superior building material.
9. Please label the three kinds of steel framing members below (3 points):



10. TRUE or FALSE: Ordinary structural steel is high in carbon content.
11. Sullivan used the advantages of structural steel to develop a new attenuated, modular framing system in the bustling 19th century metropolis of _____.
12. List three of the ground-breaking things that Sullivan was able to accomplish using structural steel that he would not have been able to accomplish with another sort of framing system:
 - 1.
 - 2.
 - 3.

BONUS (2 points): Please describe 2 advantages of using structural steel and 2 potential disadvantages :