

King Fahd University of Petroleum & Minerals  
DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING  
CE 203 STRUCTURAL MECHANICS I (Section 2)  
Second Semester 1435 / 2014 (132)

Name: \_\_\_\_\_  
ID #: \_\_\_\_\_

Quiz # 9

Score  $\frac{\quad}{10}$

•6–69. Two designs for a beam are to be considered. Determine which one will support a moment of  $M = 150 \text{ kN} \cdot \text{m}$  with the least amount of bending stress. What is that stress?

$$\sigma_x = -\frac{My}{I}$$

$$\bar{I}_{x'} = \frac{1}{12} bh^3$$

