

Homework 8.**Due: 3:35pm, Monday November 28, 2005.**

Please use a word processor for preparing your answers.

QUESTION 1.

Building on your glossary you developed for homework 1 being certain to pay attention to organization, layout and sources:

- 1) Revise your entries from homework 1. Be sure to include the original entries **and** the revised entries, indicating which is which. If you do not wish to revise your original submission include the entries and explain why you are satisfied with these.
- 2) Develop entries for the following terms (used by Dr. Thornton in his lecture 11/14/05):
 - a. Horizontal loads
 - b. Alluvial riverbed
 - c. Riprap
 - d. Redundancy
 - e. Factor of safety
 - f. Forensic engineering
 - g. Isotropic material
 - h. Homogenous material
 - i. Tuned Mass Damper
- 3) Add 10 additional entries based on material covered in class or by guest speakers over the course of the semester.

QUESTION 2.

Explain why tall buildings are safer in an earthquake than low rise buildings.

QUESTION 3.

For homework 3 you identified a structural failure of interest to you and provided a **one page** description and assessment of the failure. These failures were due to overloading, construction or design errors. Some structures fail due to neglect – failure to maintain the structure or failure to communicate information. Two such failures are

- 1) The Johnstown flood of 1889, and
- 2) The flooding of the Chicago tunnels in 1992.

Choose **one** of these failures and write a **one page** description and assessment of the failure. Be sure to discuss whether the failure could have been prevented and reference your sources.

QUESTION 4.

Explain what organizations the following acronyms stand for, the role of the organization and url for the website of the organization:

- 1) AASHTO
- 2) ASCE
- 3) ABET
- 4) ITE
- 5) ACI
- 6) AISC

GRADING SHEET – HOMEWORK - CIEG 125 - Introduction to Civil Engineering.

NAME: _____

This sheet MUST be stapled to the front of your homework.

		Points awarded	Max points
General Presentation (5 points total)	Name, Date, Assignment #		1
	Neatness (don't forget to staple the sheets together in the correct order!)		2
	Spelling/Grammar		2
Question 1. (37 points total)	1) Revisions		7
	2)		
	a. Horizontal loads		2
	b. Alluvial riverbed		2
	c. Riprap		2
	d. Redundancy		2
	e. Factor of safety		2
	f. Forensic engineering		2
	g. Isotropic material		2
	h. Homogenous material		2
	i. Tuned Mass Damper		2
	3)		2
	a. Entry 1		2
b. Entry 2		2	
c. Entry 3		2	
d. Entry 4		2	
e. Entry 5		2	
f. Entry 6		2	
Question 2. (10 points total)	Explanation		10
Question 3 (30 points total)	Sources		5
	Description (location, date, nature of the structure, conditions under which failure occurred)		15
	Assessment (Why did failure occur? Could failure have been prevented?)		10
Question 4 (18 points total)	1) AASHTO		3
	2) ASCE		3
	3) ABET		3
	4) ITE		3
	5) ACI		3
	6) AISC		3
TOTAL			100