Possible Test Questions

UNIT 8 SLOPE SYSTEMS (Chapter 11 - Mass Wasting)

Slope System Terms
1. What is talus?
2. What is an angle of repose that is associated with loose sediments?
3. What is a cohesive force, in regards to slope systems?

Factors That Strengthen Cohesive Forces
4. Which factors strengthens cohesive forces?
5. How much “relative amounts” of water is needed to increase cohesion?

Factors That Weaken Cohesive Strength
6. How does removal of vegetation reduce cohesive forces?
7. How does excess water content weaken cohesion? (How does water content play a role?)
8. Draw a picture and describe expansion/contraction or wetting/drying cycles. (Always on an exam)

There are dozens of types of classifications for the types of mass movements
9. Describe how one type of mass movement can change to another type of mass movement.

Movement by Creep
10. How can you recognize that creep is occurring in the area?
11. Discuss the effects of expansive clays in South Texas, especially on foundations during droughts and periods of heavy rainfall.

“Mixture” Type of Debris Flow
12. Describe a typical “mixture” that can form a debris flow.
13. What can be the common “lubricant” for most debris flows?
14. What is significant about the Blackhawk Slide in California?

Volcanoes and Lahars (Debris flows)
15. How do we distinguish lahars from other type of debris flows?
16. Along which tectonic zone are lahars most common?
17. What is the relationship between Tacoma, WA and Mt. Rainier in regard to lahars?

Mudflow (Debris Flow)
18. What happens to the consistency or hardness of the mud when a mudflow stops flowing?

Other Debris Flows (Boulder Fields and Rock Glaciers)
19. Describe the contents of a boulder field.
20. Describe the general configuration or shape of a rock glacier.

Landslides
21. True landslides involve movement along ______ _______ _______.

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Rock Falls and Rock Slides
22. Define and describe the differences between rockfall and rockslide.
23. What caused the disaster at the Vajont Dam in Italy?

Slump Landslides
24. Describe slumps and how you might recognize one.

Subaqueous Slumps
25. Where will be found some of the largest oceanic slumps in the Pacific? How often do they occur?
26. Where will be found some of the largest oceanic slumps in the Atlantic?

Avalanche
27. How do we define an avalanche?
28. What happens to the snow within an avalanche when it stops?

Preventing Mass Movements
29. Why are drain pipes used with mass movement control methods?
30. Why are woven rock baskets useful for mass movement control methods?
31. Explain use of roof bolts and netting for mass movement control.
32. Be able to identify any slope feature from any picture within your notes

Open Notes and Open Book Daily Quiz 13 (Unit 8- Slope Systems)
Using the word bank below: please clearly write the correct answer number
All answers found using the text book

IF YOU TARDY (arrived after class time start), PLEASE PLACE AN “X” AS THE ANSWER FOR QUESTION A

A. (Page 278-Figure 11.23) How many people were kill with the 1970 Peru debris flow (avalanche)?

B. (Page 260) What annual range of deaths in the US are caused by landslides or “mass wasting” (slope systems)? _______

C. (Page 263-Figure 11.5) What is the likely fate of the remaining expensive houses shown in this picture? _______
   (Page 271, Figure 11.12) Near Laguna Beach CA, residents built their house on rock layers that dipped the same angle as the canyon walls. These rock layers also contained clay layers. What effect did the rains have on these clay layers? _______

IF YOU PLAN TO LEAVE CLASS EARLY, PLEASE PLACE AN “X” AS THE ANSWER FOR QUESTION E

E. (Page 277) Features that can help identify former landslides include