

Questions - GeoHaz5: Mass Wasting (Ch. 6)

Multiple Choice

1. Which of the following is NOT a term for a segment type on a slope?
 - a. Free face
 - b. Convex
 - c. Elliptical
 - d. Concave
 - e. Talus
2. Which of the following is the most rapid form of mass wasting?
 - a. Rock fall
 - b. Rock slide
 - c. Creep
 - d. Earthflow
 - e. Slump
3. Which of the following describes slump?
 - a. Rocks break off of cliffs and fall to the base of a slope
 - b. Rocks and soil move downslope very slowly
 - c. Rock mixes with water and moves fluidly down a slope
 - d. Blocks of rock break off and move together along a curved path
 - e. Mud becomes saturated and flows into a streambed
4. Which of the following is NOT a type of flow?
 - a. Avalanche
 - b. Slump
 - c. Creep
 - d. Earthflow
 - e. Debris flow
5. Which of the following mass wasting processes does NOT necessarily involve water?
 - a. Earthflow
 - b. Debris flow
 - c. Creep
 - d. Rock fall
 - e. All mass wasting processes involve water
6. Which of the following is the most important driving force in a landslide?
 - a. Weight
 - b. Friction
 - c. Cohesion
 - d. Viscosity
 - e. Shear strength

7. Which situations would contribute to a potential soil slip?
 - a. Unconsolidated soil on top of bedrock
 - b. Materials with differing permeabilities on top of each other
 - c. An increase in steepness of a slope covered with soil
 - d. A drought on a slope with thin soil
 - e. Planting of native grasses on a previously bare hillside

8. Which of the following does NOT contribute to the failure of a slope?
 - a. Steepness
 - b. Climate
 - c. Sun exposure
 - d. Vegetation
 - e. Amount of water

9. Which of the following is NOT a way in which water contributes to slope failure?
 - a. Water adds cohesion within the grains of the soil, causing it to become unstable
 - b. Water adds weight to a slope, increasing the driving force
 - c. Water erodes the base of a slope, decreasing stability
 - d. Water mixes with the soil, causing debris flows
 - e. Water infiltrates slopes, causing slumps

10. Which of the following human activities can DECREASE the incidence of mass wasting?
 - a. Grading surfaces to increase the slope
 - b. Improving drainage from the slope
 - c. Removing vegetation such as trees and grass from the slope
 - d. Cutting in to the base of slopes in order to build houses
 - e. Road construction on the slope

11. How does urbanization increase incidences of landslides?
 - a. Trees and grasses are removed, leaving the land susceptible to erosion
 - b. Roads are constructed, altering the permeability of the land
 - c. Buildings are placed on slopes, increasing the weight on the slope
 - d. Roads are cut at the base of slopes, increasing instability
 - e. All of the above increase landslides

12. Which of the following natural hazards can cause landslides?
 - a. Earthquakes
 - b. Volcanoes
 - c. Storms
 - d. Fires
 - e. All of the above can cause landslides

13. How do drains help to prevent landslides?
- Drains keep water at the surface, only saturating the upper part of the slope
 - Drains divert water away from the slope
 - Drains pull water deeper into the base of the slope
 - Drains anchor the soil to the ground, keeping it from sliding
 - Drains do NOT prevent landslides
14. If you see a wall of stone-filled wire baskets on the side of a roadway, what is their purpose?
- They are drains that drain water from the slope
 - They are there to collect rocks from rock falls
 - They are there to support the base of the slope
 - They are there to provide extra weight on the slope
 - They are there to cushion the slope from potential collisions with cars
15. What would be the purpose of making a landslide hazard map of an area?
- Communities could use it to decide where to place critical facilities
 - Communities could use it to decide where to place drains or supports
 - Communities could use it to decide where to build new homes or businesses
 - Individuals could use it to decide where to purchase a new home
 - All of the above are purposes for a landslide hazard map