

Study Guide Chapter 8: Mass Wasting: The Work of Gravity

Multiple Choice

- Which of the following statements best describes slump?
 - slippage of a mass of material moving as a unit along a curved surface
 - blocks of bedrock sliding down a slope
 - a rapid flowage of debris containing a large amount of water and most common in arid, mountainous areas
 - a slow, downhill movement of soil and regolith
 - none of the above
- Which of the following factors contributed to the massive Gros Ventre rockslide?
 - the strata were dipping
 - a layer of clay was present
 - there were heavy rains and melting snow
 - all of the above were significant factors
 - none of the above were significant
- Which of the following terms is used to describe the way materials move during a mass wasting event?
 - fall
 - slide
 - flow
 - all of the above
 - both slide and flow
- The controlling force of mass wasting is _____.
 - water
 - gravity
 - composition of surface material
 - earthquake activity
 - none of the above
- Solifluction is common during _____.
 - summer
 - winter
 - all seasons
- A relatively rapid form of flow that is most characteristic in semiarid regions is _____.
 - creep
 - debris flow
 - solifluction
 - earthflow
 - none of the above
- An example of this occurred along the Gros Ventre Valley in Wyoming in 1925.
 - creep
 - debris flow
 - solifluction
 - earthflow
 - none of the above
- _____ is associated with frigid regions at high latitudes.
 - Creep
 - Debris flow
 - Solifluction
 - Earthflow
 - none of the above
- Alternate wetting and drying or freezing and thawing often leads to _____.
 - creep
 - debris flow
 - solifluction
 - earthflow
 - none of the above
- _____ occurs when a tongue of clay-rich material flows downslope in a humid region.
 - Creep
 - Debris flow
 - Solifluction
 - Earthflow
 - none of the above

11. A special type of earthflow, known as _____, sometimes occurs in association with earthquakes.
- creep
 - debris flow
 - solifluction
 - liquefaction
 - none of the above
12. The combined effects of _____ and running water produce stream valleys.
- earthquakes
 - tsunamis
 - faults
 - weathering
 - mass wasting
13. The term _____ is used when material moves downslope as a viscous fluid.
- slide
 - fall
 - skip
 - slump
 - none of the above
14. Which type of mass wasting is most associated with regions underlain by permafrost?
- earthflow
 - debris flow
 - rock avalanche
 - solifluction
 - none of the above
15. The gradual downhill movement of soil and regolith is called _____.
- earthflow
 - lahar
 - slump
 - debris slide
 - creep
16. In describing mass wasting events, the term _____ is used whenever material remains fairly coherent and moves along a well-defined surface.
- fall
 - flow
 - creep
 - slide
 - none of the above
17. Which one of the following is NOT a fast form of mass wasting?
- rock slide
 - debris flow
 - solifluction
 - earthflow
 - rock avalanche
18. A debris flow that occurs on the slope of a volcano is often referred to as a(n) _____.
- lahar
 - debris flow
 - mud avalanche
 - tongue
 - lateral slide
19. Unconsolidated, granular sand-sized or coarser particles assume a stable slope called the angle of _____.
- repose
 - steepness
 - stability
 - standing
 - inclination
20. If soil and regolith are involved in a type of mass wasting, which one of the following terms would NOT be used in the description?
- mud
 - rock
 - debris
 - earth
 - none of the above

True-False:

21. Water is basic to all mass wasting processes.
22. Slump is an imperceptibly slow, downhill flow of soil.
23. Solifluction occurs primarily during the warmer summer months.
24. Solifluction is definitely more common in Alaska than in Florida.
25. Debris flows are most characteristic in semiarid mountainous regions.
26. Debris flows are equally common in humid and dry regions.
27. Gravity plays an important role in all mass wasting events.
28. The Gros Ventre slide of 1925 has recently been reclassified as a lahar.
29. Slump is the most rapid form of mass wasting.
30. Mass wasting has played an important role in forming the Grand Canyon.
31. Lahars occur in association with volcanoes.
32. Earthflows are most common in arid and semiarid regions.
33. The freezing and thawing of soil can produce a gradual downhill movement of material.
34. Debris flows that occur when layers of volcanic ash become saturated are termed solifluction lobes.

Completion:

35. The downslope movement of rock, regolith, and soil under the direct influence of gravity is called _____.
36. Loose particles assume a stable slope called the _____, the steepest angle at which material remains stable.
37. _____ occurs when material saturated with water moves downslope as a viscous fluid.
38. The most rapid form of mass wasting is termed a(n) _____.
39. The downward slipping of a mass of rock or unconsolidated debris moving as a unit along a curved surface is called _____.
40. Events along Wyoming's Gros Ventre River (1925) represent an excellent example of _____.
41. Debris flows that occur on the slopes of some volcanoes are known as _____.
42. The destructive debris flows at Nevado del Ruiz in 1985 are also known by the Indonesian term _____.
43. A form of mass wasting that is common to frigid regions underlain by permanently frozen ground is _____.