

Questions - GeoHaz6: Subsidence and Soils (Ch. 7)

Multiple Choice

1. What is subsidence?
 - a. A drop in groundwater level prior to an earthquake
 - b. A increase air pressure at high elevations
 - c. A sinking of the ground surface
 - d. A swelling of the ground surface
 - e. A slumping of the ground surface

2. Which of the following cause ground subsidence?
 - a. Dissolving of rocks below surface
 - b. Earthquakes
 - c. Thawing of permafrost
 - d. Compaction of loose sediment
 - e. All of the above cause ground subsidence

3. What causes soil volume change?
 - a. Changes in the water content of soil
 - b. Changes in atmospheric pressure
 - c. Changes in temperature of the soil
 - d. Changes in the minerals in the soil
 - e. Changes in elevation of the soil

4. Which of the following is NOT a dissolvable rock?
 - a. Limestone
 - b. Granite
 - c. Gypsum
 - d. Marble
 - e. Dolostone

5. What is karst topography?
 - a. A type of landscape characterized by marshes and wetlands
 - b. A type of landscape that is mostly frozen and snow covered
 - c. A type of landscape characterized by glacial deposits
 - d. A ragged surface characterized by caves and sinkholes
 - e. A flat surface used mostly for farming

6. What is the main difference between collapse sinkholes and solutional sinkholes?
 - a. Collapse sinkholes create a subsidence in the ground level
 - b. Collapse sinkholes are faster and more dramatic
 - c. Collapse sinkholes involve the removal of groundwater as a support for a cave
 - d. Solutional sinkholes are found more often in arid regions
 - e. Solutional sinkholes are more beneficial to a location

7. Which of the following locations has a climate that is favorable to cave formation?
 - a. Louisville, KY
 - b. Las Vegas, NV
 - c. Denver, CO
 - d. New Orleans, LA
 - e. Anchorage, AK

8. What are two causes of the subsidence of New Orleans?
 - a. Draining of organic soils and earthquakes
 - b. Draining of organic soils and fine sediments
 - c. Draining of organic soils and the breakdown of clays
 - d. Draining of fine sediments and breakdown of clays
 - e. Draining of fine sediments and sinkholes

9. What is the most important mineral that characterizes expansive soils?
 - a. Clay
 - b. Calcite
 - c. Rock salt
 - d. Marble
 - e. Limestone

10. What are some indications that there are expansive soils in an area?
 - a. Wavy bumps on surfaces
 - b. Tilting sidewalks
 - c. Cracks in pavements
 - d. Tilting utility poles
 - e. All of the above are indications of expansive soils.

11. Which of the following is a correct match between climate and risk?
 - a. Sinkholes and arid climates
 - b. Collapsible soils and humid climates
 - c. Sinkholes and polar climates
 - d. Expansive soils and areas with distinct wet and dry seasons
 - e. Collapsible soils and polar climates

12. Which of the following is NOT caused by land subsidence or soil volume change?
- Water pollution
 - Building collapse
 - Disease
 - Coastal flooding
 - Loss of wetlands
13. How does pumping oil contribute to land subsidence?
- Oil reacts with the soil, causing it to fuse and take up less space
 - Oil pumps increase the load on the ground, causing the ground to sink
 - Oil is removed, which opens up space for soil to settle
 - Oil reacts with the soil, causing it to plump and take up more space
 - Oil is hot; removing it cools the earth, causing it to contract
14. How does land subsidence contribute to water pollution?
- Using sinkholes as landfills can cause pollutants to seep into groundwater
 - When rocks are dissolved dangerous chemicals enter our drinking water
 - When the land sinks, it pulls water deep into the soil where there are pollutants
 - Using caves for tourism adds a dangerous amount of pollutants to the water
 - Caves host diverse species that can be a danger to groundwater
15. How are karst landscapes beneficial to humans?
- They are locations of drinking water
 - They are aesthetically pleasing
 - They provide areas for scientific research
 - They host a variety of species
 - All of the above are reasons that karst landscapes are beneficial