

Questions - GeoHaz3: Volcanoes (Ch. 4)

Multiple Choice

1. On which of the following plate boundaries are volcanoes NOT typically found?
 - a. Mid-ocean ridges
 - b. Continental rifts
 - c. Subduction zones
 - d. Transform faults
 - e. Volcanoes are found on all plate boundaries
2. Which of the following lists magma types in order of INCREASING viscosity (least viscous first)?
 - a. Basaltic, andesitic, rhyolitic
 - b. Basaltic, rhyolitic, andesitic
 - c. Rhyolitic, basaltic, andesitic
 - d. Rhyolitic, andesitic, basaltic
 - e. Andesitic, rhyolitic, basaltic
3. Which type of magma typically results in the greatest explosive events?
 - a. Basaltic
 - b. Andesitic
 - c. Rhyolitic
 - d. Pahoehoe
 - e. A'A'
4. Which volcano type is the most highly explosive?
 - a. Shield volcano
 - b. Composite volcano
 - c. Volcanic dome
 - d. Cinder cone
 - e. Marine volcano
5. Which volcano type is composed mostly of tephra?
 - a. Shield volcano
 - b. Composite volcano
 - c. Volcanic dome
 - d. Cinder cone
 - e. Volcanic sill
6. Mauna Loa in Hawaii is an example of which type of volcano?
 - a. Shield volcano
 - b. Composite volcano
 - c. Volcanic dome
 - d. Cinder cone
 - e. Stratovolcano

7. Mt. St. Helens in Washington is an example of which type of volcano?
 - a. Shield volcano
 - b. Composite volcano
 - c. Volcanic dome
 - d. Cinder cone
 - e. Volcanic neck

8. If you see a volcano that has gentle slopes and is very large, what kind of volcano is it and what is it made from?
 - a. Shield volcano; made mostly from lava flows
 - b. Shield volcano; made mostly from tephra
 - c. Composite volcano, made mostly from lava flows
 - d. Composite volcano, made mostly from a combination of lava flows and tephra
 - e. Cinder cone volcano, made mostly from tephra

9. Why are composite volcanoes dangerous?
 - a. They are associated with higher viscosity magma.
 - b. They have dormant periods between eruptions.
 - c. They produce a lot of pyroclastic materials.
 - d. They erupt gasses and ash into the atmosphere.
 - e. All of the above are reasons why composite volcanoes are dangerous.

10. Why do cinder cone volcanoes have steep slopes?
 - a. They are made from lava flows that pile up steeply.
 - b. They are found near other volcanoes, which crowds their ability to spread out.
 - c. They are made mostly from water and ash that harden into steep cones.
 - d. They are made from pyroclastic materials that pile up near where they were emitted.
 - e. They are made from very thick magma that doesn't flow outward much.

11. Which describes how a geyser erupts?
 - a. Gas in magma is released and pushes groundwater up through a volcano vent.
 - b. The air becomes cool at night and hot groundwater is pulled into the cool air.
 - c. Hot rocks heat groundwater; it boils, expands, and pushes through openings in the ground.
 - d. Groundwater heats underground rocks; it cools, expands, and pushes through openings in the ground.
 - e. Before volcanoes erupt, magma pushes groundwater out and up through openings in the ground.

12. Which is NOT a location where volcanoes are found?
- Alaska
 - Central United States
 - Hawaii
 - Pacific Northwest United States
 - Yellowstone National Park
13. About how many volcanic eruptions occur every year?
- 1000 or more
 - Between 100 and 1000
 - Between 50 and 100
 - Less than 50
 - None. Volcanic eruptions are VERY rare.
14. How are volcanoes at hot spots different from those at subduction zones?
- Hot spot volcanoes are made from more viscous magma.
 - Hot spot volcanoes are made from magma from the asthenosphere; subduction zone volcanoes are made from melted ocean plate.
 - Hot spot volcanoes are made from rhyolitic magma; subduction zone volcanoes are made from basaltic magma.
 - Hot spot volcanoes are always found on the ocean floor; subduction zone volcanoes are always found on continental plates.
 - Hot spot volcanoes are smaller than volcanoes at subduction zones.
15. Which of the following volcanic hazards is responsible for the most deaths?
- Lava flows
 - Ash falls
 - Mud flows
 - Poisonous gasses
 - Pyroclastic flows
16. Why is an ash fall hazardous?
- Ash can destroy crops and make the ground unsuitable for planting
 - Ash can contaminate water supplies
 - Ash can accumulate on buildings, causing them to collapse
 - Ash can get into jet engines, causing them to fail
 - All of the above are hazards of ash falls
17. What is a pyroclastic flow?
- An avalanche of hot rock, ash, and glass fragments
 - A flow of hot ash and water
 - An avalanche of ash and water
 - A flow of lava and rock
 - A flow of lava and water

18. Which of the following was NOT a hazard associated with the explosion of Mt. St. Helens?
- Landslide
 - Mudslide
 - Ash fall
 - Pyroclastic Flow
 - All of the above were associated with Mt. St. Helens.
19. How do volcanoes factor in to climate change?
- Volcanoes release hot air into the atmosphere, contributing to global warming.
 - Lava from volcanoes heats up the air in the atmosphere, contributing to global warming.
 - Lava cools into black rock that absorbs heat from the atmosphere, heating up the earth itself.
 - Ash aerosols in the atmosphere reflect sunlight, which can cause global cooling that can last for years.
 - Ash coats the Earth's surface, trapping heat and heating up the earth itself.
20. Why are volcanoes beneficial to the Earth and its inhabitants?
- Volcanic soils have minerals that grow certain types of plants
 - Volcanic deposits include metals and other mineral that are useful for building
 - Volcanoes are beautiful and provide areas for recreation
 - Heat from volcanoes can be harnessed to produce energy
 - All of the above are reasons why volcanoes are beneficial
21. Which of the following is NOT used to determine whether a volcanic eruption is expected?
- Earthquake activity increases
 - Groundwater changes in temperature
 - Atmospheric pressure decreases
 - Land surfaces around the volcano may change shape
 - Concentrations of CO₂ may change