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| --- | --- | --- | --- | --- |
| Title: | | | **Quiz Volcanoes** | |
| Started: | | | January 22, 2012 10:57 PM | |
| Submitted: | | | January 22, 2012 11:22 PM | |
| Time spent: | | | [00:25:20](javascript:openNewWindow('viewAttemptEventsLog.dowebct?assmtAttemptId=8710137184111','ViewAccessLog','500','500')) | |
| **Total score:** | | | **19/20 = 95%** https://www.vista.ubc.ca/webct/images/dot_divide.gifTotal score adjusted by 0.0 https://www.vista.ubc.ca/webct/images/dot_divide.gifMaximum possible score: 20 | |
| **1.** |  | |
|  | |  |  | | --- | --- | | Grain size in igneous rocks is a function of \_\_\_\_\_\_ over time. | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | Student ResponseA. | cooling | Student Response | | B. | heating |  | | C. | change in gas content |  | | D. | change in silica content |  | | E. | density change |  | | | | Score: | 1/1 | |  | | | |
| **2.** |  | |
|  | |  |  | | --- | --- | | The explosivity of hot spot volcanism is dictated by which of the following? | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | the silica composition of the mantle |  | | B. | the type of plate boundary at the hot spot |  | | C. | the temperature of the overlying plate |  | | D. | the rate of plate movement |  | | Student ResponseE. | the composition of the overlying plate | Student Response | | | | Score: | 1/1 | |  | | | |
| **3.** |  | |
|  | |  |  | | --- | --- | | What does satellite radar interferometry (InSAR) measure? | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | precise pinpointing of earthquake epicenters near an active volcano |  | | B. | the frequency of earthquake waves emitted by magma |  | | Student ResponseC. | ground deformation of a volcano or volcanic area over time | Student Response | | D. | instantaneous emplacement of lava at the surface |  | | E. | location of anomalous heat flow in an active volcanic area |  | | | | Score: | 1/1 | |  | | | |
| **4.** |  | |
|  | |  |  | | --- | --- | | A volcano that is likely to erupt will MOST LIKELY show which of the following combination of precursors? | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | Student ResponseA. | abundant ‘fringes’ on InSAR images; increased COSPEC measurements; unseasonal melting of snow | Student Response | | B. | few ‘fringes’ on InSAR images; lava dome expansion; decreased seismic activity |  | | C. | increased COSPEC measurements; increased seismic activity; lava dome deflation |  | | D. | increased seismic activity; unseasonal melting of snow; lava dome deflation |  | | E. | lava dome expansion; decreased COSPEC measurements; decreased seismic activity |  | | | | Score: | 1/1 | |  | | | |
| **5.** |  | |
|  | |  |  | | --- | --- | | The explosivity of magmatic eruptions is most dependent on \_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | the type of plate boundary the volcano is on |  | | B. | how often eruptions occur |  | | Student ResponseC. | the ease with which dissolved gases can escape from the magma | Student Response | | D. | the volume of magma erupted |  | | E. | the number of people in the vicinity of the eruption |  | | | | Score: | 1/1 | |  | | | |
| **6.** |  | |
|  | |  |  | | --- | --- | | What is the primary volcanic hazard to communities built along rivers near Mount Rainier? | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | pyroclastic flows |  | | B. | lava |  | | Student ResponseC. | lahars | Student Response | | D. | ash flow |  | | E. | toxic volcanic gases |  | | | | Score: | 1/1 | |  | | | |
| **7.** |  | |
|  | |  |  | | --- | --- | | Mafic lavas have \_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | Student ResponseA. | low silica content and temperature between 1200-1400 °C | Student Response | | B. | high silica content and temperature between 1200-1400 °C |  | | C. | intermediate silica content and temperature between 1000-1200 °C |  | | D. | intermediate silica content and temperature between 600-1000 °C |  | | E. | low silica content and temperature between 600-1000 °C |  | | | | Score: | 1/1 | |  | | | |
| **8.** |  | |
|  | |  |  | | --- | --- | | The occurrence of a lahar is difficult to predict because \_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | lahars are not restricted to existing stream drainages |  | | B. | lahars travel long distances |  | | Student ResponseC. | lahars can occur long after an eruption ceases | Student Response | | D. | lahars are composed of all sorts of sizes of material |  | | E. | acoustic flow monitors do not work during eruptions |  | | | | Score: | 1/1 | |  | | | |
| **9.** |  | |
|  | |  |  | | --- | --- | | Compared to shield volcanoes, composite volcanoes are \_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | larger (in general), with shallower slopes and more mafic flows |  | | B. | more common at divergent plate margins |  | | C. | more common at continental intraplate settings |  | | D. | not as explosive |  | | Student ResponseE. | smaller, with steeper slopes and more felsic lavas | Student Response | | | | Score: | 1/1 | |  | | | |
| **10.** |  | |
|  | |  |  | | --- | --- | | Which of the following properties of extrusive igneous rock/magma does NOT depend on its chemical composition? | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | Student ResponseA. | crystal size | Student Response | | B. | melting temperature |  | | C. | mineralogy |  | | D. | viscosity |  | | E. | solidification temperature |  | | | | Score: | 1/1 | |  | | | |
| **11.** |  | |
|  | |  |  | | --- | --- | | Which of the following monitoring techniques would BEST indicate year-to-year uplift of the ground in a volcanic area and hence the possibility of a potential future eruption? | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | LANDSAT imagery |  | | Student ResponseB. | InSAR imagery | Student Response | | C. | airborne magnetic survey |  | | D. | COSPEC survey |  | | E. | electromagnetic survey |  | | | | Score: | 1/1 | |  | | | |
| **12.** |  | |
|  | |  |  | | --- | --- | | When considering all the predictive tools you could use to predict an impending eruption, which is considered to be the SINGLE MOST USEFUL? | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | LIDAR volume analysis |  | | Student ResponseB. | seismic monitoring | Student Response | | C. | GPS inflation monitoring |  | | D. | InSAR inflation monitoring |  | | E. | COSPEC gas analysis |  | | | | Score: | 1/1 | |  | | | |
| **13.** |  | |
|  | |  |  | | --- | --- | | The “resistance to flow” of any liquid is known as its \_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | Student ResponseA. | viscosity | Student Response | | B. | liquidity factor |  | | C. | solidification constant |  | | D. | runnability |  | | E. | cooling rate |  | | | | Score: | 1/1 | |  | | | |
| **14.** |  | |
|  | |  |  | | --- | --- | | Which of the following is NOT a product of a volcanic eruption? | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | Student ResponseA. | intrusive igneous rocks | Student Response | | B. | extrusive igneous rocks |  | | C. | volcanic glass |  | | D. | volcanic bombs |  | | E. | aa basalt |  | | | | Score: | 1/1 | |  | | | |
| **15.** |  | |
|  | |  |  | | --- | --- | | Volcanic landslides can be triggered by all of the following EXCEPT \_\_\_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | Student ResponseA. | lahars | Student Response | | B. | volcanic activity |  | | C. | seismic activity |  | | D. | heavy rainfall |  | | E. | rapid snow melt |  | | | | Score: | 1/1 | |  | | | |
| **16.** |  | |
|  | |  |  | | --- | --- | | Which of the following is an important difference between a pyroclastic flow and a lahar? | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | pyroclastic flows contain more water |  | | Student ResponseB. | pyroclastic flows only occur during eruptions | Student Response | | C. | the risk of pyroclastic flow is heightened by glaciers and snow |  | | D. | pyroclastic flows travel further than lahars |  | | E. | pyroclastic flows are cooler than lahars |  | | | | Score: | 1/1 | |  | | | |
| **17.** |  | |
|  | |  |  | | --- | --- | | Which of these Cascade Range volcanoes do geologists believe has the ability to greatly affect (i.e. be very hazardous) the largest area around it? | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | Mount St. Helens |  | | B. | Mount Garibaldi |  | | Student ResponseC. | Mount Rainier | Student Response | | D. | Mount Baker |  | | E. | Crater Lake/Mount Mazama |  | | | | Score: | 1/1 | |  | | | |
| **18.** |  | |
|  | |  |  | | --- | --- | | Hot spot volcanoes form when \_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | the underlying mantle moves beneath the crust over time, forming a chain of volcanoes |  | | B. | anomalously hot areas in the plate melt near faults, producing a chain of volcanoes |  | | C. | subducted water interacts with lithosphere to produce magma |  | | D. | friction at a transform boundary melts the crust |  | | Student ResponseE. | material from the core-mantle boundary rises to form magma and melts the overlying crust | Student Response | | | | Score: | 1/1 | |  | | | |
| **19.** |  | |
|  | |  |  | | --- | --- | | Assuming that the Hawaiian hot spot is fixed in the mantle, in which direction is the Pacific Plate currently moving? | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | west |  | | B. | east |  | | Student ResponseC. | northwest | Student Response | | D. | northeast |  | | E. | southeast |  | | | | Score: | 1/1 | |  | | | |
| **20.** |  | |
|  | |  |  | | --- | --- | | According to the textbook, which of the following represents the most violent eruption style? | | |  | | | |  | **Student Response** | **Correct Answer** | | --- | --- | --- | | A. | VEI 6 Plinian | Student Response | | B. | VEI 2 Strombolian |  | | C. | VEI 1 Hawaiian |  | | Student ResponseD. | VEI 9 Icelandic |  | | E. | VEI 3 Vulcanian |  | | | | Score: | 0/1 | | |

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| Title: | | **PQ1 Volcanoes** |
| Started: | | January 22, 2012 7:58 PM |
| Submitted: | | January 22, 2012 7:58 PM |
| Time spent: | | [00:00:17](javascript:openNewWindow('viewAttemptEventsLog.dowebct?assmtAttemptId=8709382801211','ViewAccessLog','500','500')) |
| **Total score:** | | **5/5 = 100%** https://www.vista.ubc.ca/webct/images/dot_divide.gifTotal score adjusted by 0.0 https://www.vista.ubc.ca/webct/images/dot_divide.gifMaximum possible score: 5 |
| **1.** |  |
|  | |  |  | | --- | --- | | Which of these Cascade Range volcanoes do geologists believe has the ability to greatly affect (i.e. be very hazardous) the largest area around it? | | |  | | | |  | **Student Response** | **Value** | | --- | --- | --- | | A. | Crater Lake/Mount Mazama |  | | B. | Mount Garibaldi |  | | Student ResponseC. | Mount Rainier | 100% | | D. | Mount Baker |  | | E. | Mount St. Helens |  | | | | Score: | 1/1 | |  | | |
| **2.** |  |
|  | |  |  | | --- | --- | | A nearby volcano is erupting pyroclastic flows. Where would you be safest? | | |  | | | |  | **Student Response** | **Value** | | --- | --- | --- | | A. | on the upper floor of a two-story steel-frame building |  | | B. | on the upper floor of a two-story wood building |  | | C. | in a river valley |  | | D. | in a swimming pool |  | | Student ResponseE. | on a ridge top | 100% | | | | Score: | 1/1 | |  | | |
| **3.** |  |
|  | |  |  | | --- | --- | | The occurrence of a lahar is difficult to predict because \_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Value** | | --- | --- | --- | | A. | acoustic flow monitors do not work during eruptions |  | | B. | lahars travel long distances |  | | C. | lahars are composed of all sorts of sizes of material |  | | D. | lahars are not restricted to existing stream drainages |  | | Student ResponseE. | lahars can occur long after an eruption ceases | 100% | | | | Score: | 1/1 | |  | | |
| **4.** |  |
|  | |  |  | | --- | --- | | The most active Cascade arc volcano over the past 4,000 years is \_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Value** | | --- | --- | --- | | A. | Mount Baker |  | | B. | Mount Hood |  | | C. | Mount Rainier |  | | D. | Mount Shasta |  | | Student ResponseE. | Mount St. Helens | 100% | | | | Score: | 1/1 | |  | | |
| **5.** |  |
|  | |  |  | | --- | --- | | Lahars, pyroclastic flows, and volcanic landslides are all hazards at \_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Value** | | --- | --- | --- | | A. | Hekla, Iceland |  | | B. | Kilauea |  | | C. | Paricutin |  | | D. | Stromboli |  | | Student ResponseE. | Mt. Baker | 100% | | | | Score: | 1/1 | |

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| Title: | | **PQ2 Volcanoes** |
| Started: | | January 22, 2012 8:05 PM |
| Submitted: | | January 22, 2012 8:06 PM |
| Time spent: | | [00:00:27](javascript:openNewWindow('viewAttemptEventsLog.dowebct?assmtAttemptId=8709422794211','ViewAccessLog','500','500')) |
| **Total score:** | | **5/5 = 100%** https://www.vista.ubc.ca/webct/images/dot_divide.gifTotal score adjusted by 0.0 https://www.vista.ubc.ca/webct/images/dot_divide.gifMaximum possible score: 5 |
| **1.** |  |
|  | |  |  | | --- | --- | | The “resistance to flow” of any liquid is known as its \_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Value** | | --- | --- | --- | | A. | liquidity factor |  | | B. | runnability |  | | C. | cooling rate |  | | Student ResponseD. | viscosity | 100% | | E. | solidification constant |  | | | | Score: | 1/1 | |  | | |
| **2.** |  |
|  | |  |  | | --- | --- | | Which of the following volcanic HAZARDS is the most likely to kill people, plants, and animals? | | |  | | | |  | **Student Response** | **Value** | | --- | --- | --- | | A. | lahar |  | | B. | lava flow |  | | Student ResponseC. | pyroclastic flow | 100% | | D. | toxic gas |  | | E. | tsunami |  | | | | Score: | 1/1 | |  | | |
| **3.** |  |
|  | |  |  | | --- | --- | | Mount Rainier is dangerous for all of the following reasons EXCEPT \_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Value** | | --- | --- | --- | | A. | It has a history of producing large lahars. |  | | B. | It is the largest of the Cascade volcanoes. |  | | Student ResponseC. | It has been more active than Mount St. Helens over the past 2000 years. | 100% | | D. | It has a history of erupting pyroclastic flows and lava flows. |  | | E. | It is covered with a large volume of ice and snow. |  | | | | Score: | 1/1 | |  | | |
| **4.** |  |
|  | |  |  | | --- | --- | | Compared to mafic magma, silicic magma is \_\_\_\_\_\_. | | |  | | | |  | **Student Response** | **Value** | | --- | --- | --- | | A. | hotter, more viscous, and less gas-rich |  | | B. | hotter, less viscous, and more gas-rich |  | | C. | hotter, more viscous, and more gas-rich |  | | Student ResponseD. | cooler, more viscous, and more gas-rich | 100% | | E. | cooler, less viscous, and less gas-rich |  | | | | Score: | 1/1 | |  | | |
| **5.** |  |
|  | |  |  | | --- | --- | | Which of the following is FALSE about continental arcs? | | |  | | | |  | **Student Response** | **Value** | | --- | --- | --- | | A. | Magmatism at continental arcs is initiated by introduction of water into the mantle. |  | | B. | Cinder cones and domes may be found associated with continental arc volcanoes. |  | | Student ResponseC. | Eruptions of intermediate composition magma dominate at volcanoes in continental arcs. | 100% | | D. | The most common type of volcano in continental arcs is the composite volcano (stratovolcano). |  | | E. | Compared to oceanic arcs, continental arcs produce more magmas with higher silica contents. |  | | | | Score: | 1/1 | |