# ANSWERS TO "GLOBAL VOLCANOES"

I.1. 56
I.2. c.
I.3. b.
I.4. a.
I.5. 49
I.6. b.
I.7. c.
I.8. b.
I.9. 53
I.10. c.
I.11. b.
I.12. b.
I.13. 50
I.14. b.

| | **Median $SiO_2$** | **Median rock name** |
|---|---|---|
| Within 500 km of convergent boundary | *56* | *Andesite* |
| Greater than 500 km from convergent boundary | *49* | *Basalt* |
| Continental crust | *53* | *Andesite* |
| Oceanic crust | *50* | *Basalt* |

I.16. *Most explosive volcanoes are fed by intermediate (e.g., andesitic) and felsic (e.g., rhyolitic) melt. These volcanoes are largely located near convergent plate boundaries and/or on continental crust. In contrast, volcanoes fed by mafic (e.g., basaltic) melt are largely located far from convergent plate boundaries and/or on oceanic crust.*

II.1. a.
II.2. a.
II.3. *The "night lights" image reveals human activity on the south side of the mountain. A ski lodge and other recreational facilities are located there.*
II.4.

| **ROCK** | **AVERAGE $SiO_2$** | **COMPOSITION** |
|---|---|---|
| Rhyolite | 74 | felsic |
| Andesite | 60 | intermediate |
| Basalt | 50 | mafic |

II.5. *Explosive volcanic activity could happen at Mount Hood because andesite is abundant and rhyolite is also present. Both of these rocks are associated with explosive volcanic activity (e.g., explosive blasts and pyroclastic flows) because they are relatively silica-rich. The snow pack indicates the potential for mudflows as well. Finally, volcanic ash, lava flows and landslides are common hazards at andesitic volcanoes (stratovolcanoes).*