Volcanoes

Choose one answer per question. Circle A, B, C, or D.

1. What is the opening through which lava, gas, or fragments reach the surface called?
   A. Vent
   B. Fault scarp
   C. Ocean trench
   D. River delta

2. Which type of volcano has broad, gentle slopes built mainly by layers of flowing lava?
   A. Cinder cone
   B. Lava dome
   C. Shield volcano
   D. Impact crater

3. A microscope shows fine volcanic ash particles from an eruption. What can the ash consist of?
   A. Only smoke and water vapor
   B. Tiny pieces of rock, minerals, and volcanic glass
   C. Only soot from burned wood
   D. Only grains of sea salt

4. A thick mass of lava moves slowly and piles above a volcanic vent. Which landform can it build?
   A. Glacial moraine
   B. River delta
   C. Sand dune
   D. Lava dome

5. Which term means a stream of molten rock moving across the ground from a volcanic opening?
   A. Ashfall
   B. Lava flow
   C. Lahar
   D. Fumarole

6. Heavy rain mixes with loose volcanic debris and forms a fast-moving slurry in a river valley. What is this flow called?

A. Lahar
B. Lava dome
C. Ash plume
D. Steam vent

7. After a major eruption drains part of a magma reservoir, the ground above it collapses and leaves a broad depression. Which feature can form?

A. Lava tube
B. Dike
C. Cinder cone
D. Caldera

8. The surface of a lava flow cools into a crust while hot lava keeps moving underneath. What can remain if the interior drains away?

A. A fault scarp
B. A meteorite crater
C. A lava tube
D. An underwater trench

9. A steep volcanic cone contains repeated layers of lava flows and loose volcanic fragments. Which volcano type fits the description?

A. Composite volcano
B. Shield volcano
C. Lava lake
D. A single block of pumice

10. A town lies east of a volcano, and the wind carrying the ash cloud blows from west to east. Which process most directly explains ash settling in the town?

A. The ash moves only through groundwater.
B. Molten rock flows east and changes into ash after reaching town.
C. The volcano’s entire cone moves east.
D. Wind transports particles downwind and they fall out of the air.

11. Two magmas contain similar amounts of dissolved gas. One is substantially more viscous. What helps explain why the thicker magma can produce a more explosive eruption?

A. The thicker magma always freezes on leaving the reservoir.
B. Greater viscosity removes all dissolved gas.
C. Gas can have more trouble escaping from the thicker magma.
D. Greater viscosity prevents pressure from changing.

12. An observer sees a sustained stream of lava spreading out with relatively little fragmentation. What term best fits that dominant style?

A. Meteoric
B. Effusive
C. Glacial
D. Alluvial

13. Monitoring stations around a vent move slightly up and outward over several weeks. Which observation has the network measured directly?

A. The depth of every earthquake
B. The exact gas content of the magma
C. A guaranteed eruption time
D. Ground deformation

14. A volcano shows more earthquakes, ground movement, and a change in gas release. Why do scientists examine all three records together?

A. Together they give more evidence about possible movement below the surface.
B. Each instrument provides an exact countdown to an eruption.
C. A change in one record makes the others irrelevant.
D. All three instruments directly photograph the magma.

15. Two deposits lie near a volcano. One settles from a drifting cloud. The other follows a river channel and contains wet mud mixed with boulders. Which pairing best matches the two deposits?

A. Two lava flows
B. Lahar deposit, then ashfall
C. Ashfall, then lahar deposit
D. Two deposits from airborne ash