



Daily Article (Bharath's Reading list) - Answers and Explanations 23.02.2024

Article link : [Link](#) (Iceland's Recent Volcanic Eruptions Are Unleashing Deep Secrets)

1. The "surprising" result unearthed by studies of the recent eruptions on the Reykjanes Peninsula is that:

- A. The chemical compositions of the lavas of the eruptions are unexpectedly similar, hinting at the sharing of magma deep underground
- B. By dating when the magma formed, studies have been able to uncover how long the molten rock lingered in the mantle before emerging at the surface
- C. Rather than volcanic eruptions from a central peak, volcanoes of the Reykjanes often fountain from fissures, creating floods of molten rock that look a bit like tiger stripes on a map
- D. All the above

Explanation : A

Note the lines, 'These studies are also unearthing unexpected chemical similarities between the lavas of each eruption that hint at deep subsurface connections across the peninsula. "This is very surprising," says Edward Marshall, a geochemist at the University of Iceland, who is studying the chemical conundrum.' Option B is factually incorrect and option C is unrelated to the question.

2. Based on the article, all the following are true except:

- A. In Iceland, the Eurasian and North American plates gradually draw away from one another, sending molten rock welling up from the deep to erupt at the surface
- B. Each new spasm of volcanic activity in Iceland lays a fresh layer of volcanic rock, serving as a geological record of all past eruptions
- C. Forged from volcanic fire, Iceland is one of the only places in the world where the mid-ocean ridge stands above the waves

D. In the southeast of the island, the ridge coincides with a searing hot column of molten rock which drives even more volcanic fury

Explanation: B

Refer to the lines, 'Each new spasm of volcanic activity lays a fresh layer of volcanic rock, burying evidence of past eruptions. "Geological history is always overriding itself," he says.

3. Which of the following is not stated in the article as a possible explanation for how sharing of magma happens?

A. The Reykjanes Peninsula is located in a hot spot, where the ridge coincides with a searing hot column of molten rock

B. Several pockets of magma linger deep underground, slowly filling as molten rock trickles in and as these blobs of magma swell, they form new connections, merging into larger reservoirs

C. A tsunami of molten rock floods up from the mantle into the subsurface, awakening volcanoes across the peninsula

D. None of the above

Explanation: A

Options B and C are clearly mentioned. Option A is factually incorrect ('In the Reykjanes Peninsula, which is located far from the hot spot...') and is not mentioned in the article as a possible explanation for why sharing of magma happens.