TPO 70

Reading 1

Paragraph

Further ruling out the possibility of a decentralized China was the potential threat of nomads. The traditional line of defense that China erected in the north along the steppe–a vast grass-covered plain–customarily referred to as the Great Wall was by no means fixed. The territories north and west of the Great Wall, having an annual rainfall of less than fifteen inches and therefore inadequate for cultivation, remained a grazing ground for the nomads. In times of bad weather and in periods of China's dynasty, these nomads had a tendency to execute large-scale invasion. This was a problem whose cause was so deeply rooted in geography that the Chinese were not able to solve it merely through military offensives. Long-term experience taught them to put the regional and local government under a strong leader, allowing national defense to dictate a degree of homogeneity and uniformity in order to survive.

Question

A. It was built by a decentralized Chinese state.

B. It did not always protect the land from invasion.

C. It was erected in the northernmost area of the country.

D. It used up much cultivated land.

Answer

官方给的解析： 首先定位到文中"This was a problem"对英语题目中的 drawback，那是什么 problem？返回上一句可以发现这个 problem 是"these nomads had a tendency to execute large-scale invasion."即游牧民族有入侵的倾向。因此选 B

事实上我觉得这道题也有点瑕疵，定位感觉主要还是在"remained a grazing ground for the nomads"，总之这个选项的表述有点奇怪，但其它几个也不太可能

Reading 2

Paragraph

In North America permanence theory was linked to the theory of subsidence (or sinking) of sedimentary basins along continental margins. This idea was developed primarily by paleontologist James Hall (1811–1898), who noted that beneath the forest cover, the Appalachian Mountains of North America were built up of folded layers of shallowwater sedimentary rocks, thousands of feet thick. How did these sequences of shallow-water deposits form? How were they folded and uplifted into mountains? Hall suggested that materials eroded off the continents accumulated in the adjacent marginal basins, causing the basins to subside. Subsidence allowed more sediment to accumulate, causing more subsidence, until finally the weight of the pile caused the sediments to be heated, converted to rock, and then uplifted into mountains. Dana modified Hall's view by arguing that thick sedimentary piles were not the cause of subsidence but the result of it.Either way, the theory provided a concise explanation of how thick sequences of shallow-water rocks could accumulate, but was vague on the question of how they were transformed into mountain belts.

Question

According to paragraph 5, which of the following led James Hall to propose a theory of subsidence?
A. The gradual sinking of the Appalachian Mountains resulting from the forests covering them.
B. The existence of sedimentary basins along continental margins.
C. The apparent subsidence of mountains due to erosion.
D. The notion that the Appalachian Mountains are formed of thick, folded layers of sedimentary rock.

Answer

D，这题一点难度都没有，不该选错的

This idea was developed primarily by paleontologist James Hall (1811–1898), who noted that beneath the forest cover, the Appalachian Mountains of North America were built up of folded layers of shallowwater sedimentary rocks, thousands of feet thick.

Paragraph

Nineteenth-Century Theories of Mountain Formation One of the central scientific questions of nineteenth-century geology was the origin of mountains. How were they formed? What process squeezed and folded rocks like bread dough? What made Earth's surface move? Most theories invoked terrestrial contraction as a causal force. It was widely believed that Earth had formed as a hot, incandescent body and had been steadily cooling since the beginning of

geological time. Because most materials contract as they cool, it seemed logical to assume that Earth had been contracting as it cooled, too. As it did, its surface would have deformed, producing mountains.

In Europe, Austrian geologist Eduard Suess (1831–1914) popularized the image of Earth as a drying apple: as the planet contracted, its surface wrinkled to accommodate the diminished surface area. Suess assumed that Earth's initial crust was continuous but broke apart as the interior shrank. The collapsed portions formed the ocean basins, the remaining elevated portions formed the continents. With continued cooling, the original continents became unstable and collapsed to form the next generation of ocean floor, and what had formerly been ocean now became dry land. Over the course of geological history, there would be a continual interchange of land and sea, a periodic rearrangement of the landmasses.

The interchangeability of continents and oceans explained a number of other perplexing geological observations, such as the presence of marine fossils on land (which had long before puzzled Leonardo da Vinci) and the extensive interleaving of marine and terrestrial sediments in the stratigraphic record. Suess's theory also explained the striking similarities of fossils in parts of Africa and South America. Indeed, in some cases the fossils seemed to be identical, even though they were found thousands of miles apart. These similarities had been recognized since the mid-nineteenth century, but they had been made newly problematic by Darwin's theory of evolution. If plants and animals had evolved independently in different places within diverse environments, then why did they look so similar? Suess explained this conundrum by attributing these similar species to an early geological age when the continents were contiguous in an ancient supercontinent called Gondwanaland.

Suess's theory was widely discussed and to varying degrees accepted in Europe, but in North America geologist James Dwight Dana (1813–1895) had developed a different version of contraction theory. Dana suggested that the continents had formed early in Earth history, when low-temperature minerals such as quartz and feldspar had solidified. Then the globe continued to cool and contract, until the high-temperature minerals such as olivine and pyroxene finally solidified–on the Moon, to form the lunar craters; on Earth, to form the ocean basins. As contraction continued after Earth was solid, its surface began to deform. The boundaries between continents and oceans were most affected by the pressure, and so mountains began to form along continental margins. With continued contraction came continued deformation, but with the continents and oceans always in the same relative positions. Although Dana's theory was a version of contraction, it came to be known as permanence theory, because it viewed continents and oceans as globally permanent features.

In North America permanence theory was linked to the theory of subsidence (or sinking) of sedimentary basins along continental margins. This idea was developed primarily by paleontologist James Hall (1811–1898), who noted that beneath the forest cover, the Appalachian Mountains of North America were built up of folded layers of shallowwater sedimentary rocks, thousands of feet thick. How did these sequences of shallow-water deposits form? How were they folded and uplifted into mountains? Hall suggested that materials eroded off the continents accumulated in the adjacent marginal basins, causing the

basins to subside. Subsidence allowed more sediment to accumulate, causing more subsidence, until finally the weight of the pile caused the sediments to be heated, converted to rock, and then uplifted into mountains. Dana modified Hall's view by arguing that thick sedimentary piles were not the cause of subsidence but the result of it.Either way, the theory provided a concise explanation of how thick sequences of shallow-water rocks could accumulate, but was vague on the question of how they were transformed into mountain belts.

Question

A. Many scientists believed that mountains were formed early in geological time while Earth was still a hot body.

B. Continents may have developed early with the formation of rocks and remained constant while mountains formed at their edges as Earth shrank.

C. One theory postulated that sedimentary rock forming at the edge of continents first sank under its own weight,then rose to form mountains.

D. It was suggested that as Earth's hot curst cooled, it cracked and formed interchanging continents and oceans.

E. Some mountainous areas are made up of layers of sedimentary rocks, which may explain how mountains rose as Earth cooled.

F. The presence of marine fossils on land and of similar fossils in different parts the world resulted from the early formation of a supercontinent.

Answer

A. 原文 Most theories invoked terrestrial contraction as a causal force. It was widely believed that Earth had formed as a hot, incandescent body and had been steadily cooling since the beginning of geological time. Because most materials contract as they cool, it seemed logical to assume that Earth had been contracting as it cooled, too. As it did, its surface would have deformed, producing mountains.

因此意思有所偏差，a hot, incandescent body是Earth早期form的时候，而mountain是"contract as they cool"。

B. √，在原文第四段：Dana suggested that the continents had formed early in Earth history, when low-temperature minerals such as quartz and feldspar had solidified. Then the globe continued to cool and contract, until the high-temperature minerals such as olivine and pyroxene finally solidified–on the Moon, to form the lunar craters; on Earth, to form the ocean basins. As contraction continued after Earth was solid, its surface began to deform.

The boundaries between continents and oceans were most affected by the pressure, and so mountains began to form along continental margins.

C. √，原话在最后一段，Subsidence allowed more sediment to accumulate, causing more subsidence, until finally the weight of the pile caused the sediments to be heated, converted to rock, and then uplifted into mountains.

D. √ 第四段，As contraction continued after Earth was solid, its surface began to deform. The boundaries between continents and oceans were most affected by the pressure, and so mountains began to form along continental margins. With continued contraction came continued deformation, but with the continents and oceans always in the same relative positions.

E. ×，感觉E比较难。只有最后一段提到了，……who noted that beneath the forest cover, the Appalachian Mountains of North America were built up of folded layers of shallowwater sedimentary rocks。这个Theory讲的是：Subsidence allowed more sediment to accumulate, causing more subsidence, until finally the weight of the pile caused the sediments to be heated, converted to rock, and then uplifted into mountains. 这里的冷却和加热是“直到最终堆积物的重量导致沉积物受热”，和地球冷却没有直接关系

F. 陆海互换性不是因为super continent: With continued cooling, the original continents became unstable and collapsed to form the next generation of ocean floor, and what had formerly been ocean now became dry land. Over the course of geological history, there would be a continual interchange of land and sea, a periodic rearrangement of the landmasses.

这篇文章确实有点难懂，这道六选三还挺有难度的