Group 6

Directions (81–85): Base your answers to questions 81 through 85 on your knowledge of earth science and the two diagrams below which are used to help explain the theory of continental drift.

Diagram I represents a map of a portion of the Earth showing the relative position of the mid-Atlantic Ridge. Points A through D are locations in the ocean and points X and Y are locations on the continents.

Diagram II represents a portion of the Earth’s interior with a model of probable convection cells. Locations 1 through 4 are at the Earth’s surface.

81 According to the theory of continental drift, which locations in Diagram I would most likely have the best correlation of rock, mineral, and fossil evidence?

1 the eastern coast of the United States and the southern coast of Africa
2 central Canada and central Europe
3 the eastern coast of South America and the western coast of Africa
4 the central United States and central South America

82 A ship obtains a sample of igneous bedrock from each of the positions A, B, C, and D. Which rock sample would probably be the oldest?

1 A
2 B
3 C
4 D

83 Which location in Diagram II would correspond to the position of the mid-Atlantic Ridge in Diagram I?

1 location 1
2 location 2
3 location 3
4 location 4

84 Diagram II refers to convection cells which probably exist in the

1 crust
2 mantle
3 outer core
4 inner core

85 Which graph best represents the most likely pattern of heat flow along line XY?

1
2
3
4
Group 8

If you choose this group, be sure to answer questions 91–95.

Base your answers to questions 91 through 95 on your knowledge of earth science, the Earth Science Reference Tables, and the diagram below. The diagram represents the age of the basaltic ocean crust in the Atlantic ocean between the United States and Africa. Line AB is drawn for reference purposes only.

Which statement is best supported by the diagram?
1 The ocean crust is the same age along line AB.
2 The oldest ocean crust is located near the continents.
3 The age of the ocean crust increases from point A to point B.
4 Most of the ocean crust along line AB formed in the Paleozoic Era.

The age of formation of the ocean crust along line AB suggests that the United States and Africa are moving
1 eastward
2 westward
3 closer together
4 farther apart

93 Which diagram most closely represents the cross section of the ocean floor along line AB?

94 According to the diagram, the width of the Cretaceous rock east of the mid-Atlantic Ridge along line AB is approximately
1 1,000 km
2 1,200 km
3 1,800 km
4 4,000 km