

Oceanography Section 3-1 & 3-2 Questions

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. Alfred Wegner's hypothesis of continental drift was rejected because
- Continental outlines do not really fit when continents are placed together.
 - Trenches, oceanic ridges, and transform faults were unknown at the time.
 - Continents could not possibly plow through the denser and stronger sea floor.
 - He lacked fossil and rock evidence for the existence of a supercontinent in the geologic past.
 - All of the above.
- _____ 2. Rift valleys along the oceanic ridge crests are
- Bounded by normal faults formed as the ridge pulls apart and the center subsides.
 - Have young recent lava flows, indicating volcanic activity.
 - Is where all the sea floor begins.
 - Are areas of tensions.
 - All of the above.
- _____ 3. Magnetic anomalies on the sea floor results from
- Orientation of the paleomagnetic fields of the rocks on the sea floor.
 - Change in rock type from basaltic to andesitic toward the island arcs.
 - Subduction of plates in the Benioff Zone.
 - Polar reversals occurring during the magnetic survey.
 - All of the above.
- _____ 4. Paleomagnetism results from which of the following:
- Magnetic polar reversals
 - Magnetic polar normals
 - Magnetic tectonism and seismicity
 - Alignment of some magnetic minerals in rock
 - All of the above
- _____ 5. Parallel bands of magnetic anomalies occur on each side of the oceanic ridge because
- Lava erupts on the flanks of both sides of the ridge at the same time.
 - Rate of sea floor spreading is uniform.
 - Rocks forming at the ridge crest are divided by rifting with each side of the ridge obtaining part of the rocks.
 - Sea floor becomes older away from the ridge crest.
 - All of the above

Completion

Complete each statement.

6. The name of the ancient supercontinent that Wegner believed broke apart in the continental drift is _____ . Two lines of evidence that he cited for the existence of this supercontinent are _____ and _____ .
7. The great depression in the Earth's surface occupied by water over 2 km deep is the _____ .

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8. Whereas rift valleys are bounded by _____ faults, the oceanic ridge axis is offset by _____ faults.
9. The oceanic ridge is split by _____ forces, but the areas of subduction and continental mountain chains are marked by _____ forces.
10. Where rocks break and laterally slide past each other is called either a _____ fault or _____ fault.
11. When measuring magnetism across the sea floor, the magnetometer records a stronger magnetic field, called a _____, when the rocks composing that part of the sea floor formed during a period of _____ polarity, but a weaker magnetic field, called a _____, when the rock composing that part of the sea floor formed during a period of _____ polarity.
12. Preserved magnetism in a rock is called _____.