Processes Shaping Earth's Surface

Name: ..... Date: .....

I. Multiple Choice Questions

Choose the best answer for each question.

1. **What feature indicates the movement of glaciers on the Earth's surface?**
   a) old maps of the initial glaciers
   b) watching and recording the movement of the glaciers
   c) grooves and scratches left on the rocks
   d) the water flow from the melted glacier
2. **Along the beach, a(n) _____ forms when the wind loses energy and slows down.**
   a) erosion
   b) dune
   c) weathering
   d) deposition
3. **Antelope Canyon in Arizona is formed primarily due to which of the following processes?**
   a) water eroded rock pieces and formed this town
   b) acid rain reacted with the rock's composition and changed it
   c) glaciers melted and the deposited sediments formed the town
   d) winds blew sand which cut and polished rocks
4. **Which of the following is NOT a type of plate boundary?**
   a) transform boundary
   b) divergent boundary
   c) subduction boundary
   d) convergent boundary
5. **_____ occurs when broken rock pieces move from one place to different places.**
   a) Weathering
   b) Erosion
   c) Deposition
   d) Solidification

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6. **Which term defines the process that breaks down and changes rocks physically or chemically?**

   a) weathering

   b) erosion

   c) deposition

   d) solidification

7. **Which of the following is NOT caused by tectonic plate movements?**

   a) tsunami

   b) impact craters

   c) landslide

   d) volcano

8. **Which of the following shows a chemical weathering of rocks?**

   a) the wind carries sand and small sediments causing them to collide with rocks and wears them into smaller pieces

   b) carbon dioxide reacts with water in the atmosphere forming an acid that reacts with rocks and changes their composition

   c) roots from plants find their way and grow into rock holes causing them to widen and crack

   d) water enters the rock holes, freezes, and expands causing the rock to crack; then the process repeats to break down the rock

9. **What term best describes the sliding of one tectonic plate under another less-dense plate?**

   a) erosion

   b) subduction

   c) tension

   d) weathering

10. **Which statement BEST describes erosion?**

    a) is the process that breaks down and changes rocks physically or chemically

    b) is the process of soil formation from rock sediments and organic materials

    c) is the process by which eroded materials are dropped to Earth's surface

    d) is the process of moving small pieces of rock and soil from one location to another

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II. Fill-in-the-Blank Questions

Fill in the blank with the correct term.

11. Soil and sediments can be carried by the wind from mountain tops to different areas. This process is known as _____.
12. Glacial _____ is rock sediments that deposit after the glacier melts.
13. A convergent boundary is when two plates _____ each other.
14. Windblown dust and silt deposit and form _____.
15. A(n) _____ is the sudden shaking of the Earth's surface as a result of the breaking and movement of rocks along a fault in Earth's crust.

III. Short Answer Questions

Answer the following questions in complete sentences.

16. **Explain one way that water can cause erosion.**

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17. **Describe what happens at a divergent plate boundary.**

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18. **What are the two main types of glaciers, and where are they typically found?**

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19. **Explain the difference between weathering and erosion.**

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20. **How can underwater volcanoes lead to the formation of new land?**

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Answer Key

1	c) grooves and scratches left on the rocks
2	b) dune
3	d) winds blew sand which cut and polished rocks
4	c) subduction boundary
5	b) Erosion
6	a) weathering
7	b) impact craters
8	b) carbon dioxide reacts with water in the atmosphere forming an acid
9	b) subduction
10	d) is the process of moving small pieces of rock and soil from one
11	erosion
12	till
13	move toward
14	loess
15	earthquake
16	Flowing water can pick up loose sediments like sand and gravel and transport them downstream. Over time, this moving water can wear away rocks and carve out features like river valleys and canyons.
17	At a divergent plate boundary, tectonic plates move away from each other. As they separate, magma rises from the Earth's mantle to the surface, often creating new crust in the form of mid-ocean ridges or rift valleys.
18	The two main types of glaciers are alpine glaciers (or valley glaciers), which are found in mountain valleys, and continental glaciers (or ice sheets), which are vast ice masses that cover large land areas like Greenland and Antarctica.
19	Weathering is the process that breaks down rocks into smaller pieces or changes their chemical composition in place. Erosion, on the other hand, is the process of moving these weathered rock materials (sediments) from one location to another by agents like wind, water, or ice.
20	When underwater volcanoes erupt, they release lava that cools and solidifies on the ocean floor. Over time, repeated eruptions can build up layers of lava and ash, eventually forming volcanic islands that rise above the water's surface.

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