c1

*Student: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

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| 1. | Which of the following was talked about in the opening two-page spread of Chapter 1?      |  |  | | --- | --- | | A. | oil beneath the Arctic National Wildlife Reserve |  |  |  | | --- | --- | | B. | the scenery of Glacier National Park |  |  |  | | --- | --- | | C. | earthquakes along the San Andres fault |  |  |  | | --- | --- | | D. | oil beneath the Gulf Coast of the United States | |

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| 2. | Which of the following is probably least at risk for geologic hazards?      |  |  | | --- | --- | | A. | next to a river in low areas |  |  |  | | --- | --- | | B. | near an active fault |  |  |  | | --- | --- | | C. | on soils that gently expand when wet |  |  |  | | --- | --- | | D. | on gentle slopes away from mountains |  |  |  | | --- | --- | | E. | close to, but upwind of, an active volcano | |

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| 3. | Which potential geologic hazard is NOT represented by a feature on this figure?         |  |  | | --- | --- | | A. | an earthquake |  |  |  | | --- | --- | | B. | a volcano |  |  |  | | --- | --- | | C. | contaminated groundwater |  |  |  | | --- | --- | | D. | a landslide |  |  |  | | --- | --- | | E. | flood-prone areas | |

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| 4. | Which of the following geologic aspects influence our lives based on the photograph showing horses and cows on a grassy field?      |  |  | | --- | --- | | A. | the presence of mountains, which influence the formation of clouds and precipitation |  |  |  | | --- | --- | | B. | the steepness of slopes |  |  |  | | --- | --- | | C. | the availability of water |  |  |  | | --- | --- | | D. | all of these | |

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| 5. | The distribution of natural resources is influenced by the:      |  |  | | --- | --- | | A. | type of rocks |  |  |  | | --- | --- | | B. | age of the rocks |  |  |  | | --- | --- | | C. | way in which the rocks formed |  |  |  | | --- | --- | | D. | all of these | |

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| 6. | Which of the following factors was most important in controlling the distribution of copper mines in the western U.S. versus iron mines in the Great Lakes region?      |  |  | | --- | --- | | A. | the amount of precipitation (rain and snow) |  |  |  | | --- | --- | | B. | the time of year when precipitation occurs |  |  |  | | --- | --- | | C. | different ages and geologic histories of the rocks |  |  |  | | --- | --- | | D. | the latitude (distance south or north from the equator) | |

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| 7. | Geology can help us learn about Earth's past by studying:      |  |  | | --- | --- | | A. | why continents have different regions |  |  |  | | --- | --- | | B. | why a landscape looks the way it does |  |  |  | | --- | --- | | C. | how life in the past was different than today |  |  |  | | --- | --- | | D. | how global climate has changed since the ice ages |  |  |  | | --- | --- | | E. | all of these | |

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| 8. | Which of the following is NOT a way geology informs us about Earth's past?      |  |  | | --- | --- | | A. | how the first second of the universe differed from a second today |  |  |  | | --- | --- | | B. | why continents have different regions today |  |  |  | | --- | --- | | C. | why a landscape looks the way it does today |  |  |  | | --- | --- | | D. | how life in the past was different than today |  |  |  | | --- | --- | | E. | how past global climate was different than today | |

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| 9. | The main layers of the Earth in correct order, from the surface moving down, is:      |  |  | | --- | --- | | A. | upper crust, outer core, inner core, mantle |  |  |  | | --- | --- | | B. | outer core, inner core, upper mantle, lower crust |  |  |  | | --- | --- | | C. | crust, mantle, outer core, inner core |  |  |  | | --- | --- | | D. | upper mantle, lower mantle, inner core, crust | |

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| 10. | Which of the following Earth layers is the thinnest?      |  |  | | --- | --- | | A. | oceanic crust |  |  |  | | --- | --- | | B. | upper mantle |  |  |  | | --- | --- | | C. | lower mantle |  |  |  | | --- | --- | | D. | outer core |  |  |  | | --- | --- | | E. | inner core | |

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| 11. | Which layer on this figure is the upper mantle?         |  |  | | --- | --- | | A. | A |  |  |  | | --- | --- | | B. | B |  |  |  | | --- | --- | | C. | C |  |  |  | | --- | --- | | D. | D |  |  |  | | --- | --- | | E. | E | |

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| 12. | Which layer on this figure is the continental crust?         |  |  | | --- | --- | | A. | A |  |  |  | | --- | --- | | B. | B |  |  |  | | --- | --- | | C. | C |  |  |  | | --- | --- | | D. | D |  |  |  | | --- | --- | | E. | E | |

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| 13. | Which layer on this figure is the oceanic crust?         |  |  | | --- | --- | | A. | A |  |  |  | | --- | --- | | B. | B |  |  |  | | --- | --- | | C. | C |  |  |  | | --- | --- | | D. | D |  |  |  | | --- | --- | | E. | E | |

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| 14. | Which layer in the earth is similar to the composition of granite?      |  |  | | --- | --- | | A. | continental crust |  |  |  | | --- | --- | | B. | oceanic crust |  |  |  | | --- | --- | | C. | upper mantle |  |  |  | | --- | --- | | D. | lower mantle |  |  |  | | --- | --- | | E. | core | |

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| 15. | Which layer in the earth is similar in composition to basalt, a dark lava rock?      |  |  | | --- | --- | | A. | continental crust |  |  |  | | --- | --- | | B. | oceanic crust |  |  |  | | --- | --- | | C. | upper mantle |  |  |  | | --- | --- | | D. | lower mantle |  |  |  | | --- | --- | | E. | core | |

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| 16. | Which layer in the earth is similar to the green mineral olivine?      |  |  | | --- | --- | | A. | continental crust |  |  |  | | --- | --- | | B. | oceanic crust |  |  |  | | --- | --- | | C. | mantle |  |  |  | | --- | --- | | D. | core | |

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| 17. | Which layer in the earth is similar in composition to an iron-nickel meteorite?      |  |  | | --- | --- | | A. | continental crust |  |  |  | | --- | --- | | B. | oceanic crust |  |  |  | | --- | --- | | C. | upper mantle |  |  |  | | --- | --- | | D. | lower mantle |  |  |  | | --- | --- | | E. | core | |

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| 18. | Which of the following is NOT a possible reason for why a region is higher in elevation than adjacent regions?      |  |  | | --- | --- | | A. | the lithosphere is hotter |  |  |  | | --- | --- | | B. | it has continental crust, but adjacent regions have oceanic crust |  |  |  | | --- | --- | | C. | the crust is thicker |  |  |  | | --- | --- | | D. | the crust is more dense | |

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| 19. | What is the most likely reason why a region is higher than adjacent regions?      |  |  | | --- | --- | | A. | there is a hot spot beneath it |  |  |  | | --- | --- | | B. | the crust is thicker |  |  |  | | --- | --- | | C. | it is underlain by oceanic crust |  |  |  | | --- | --- | | D. | the asthenosphere is hotter |  |  |  | | --- | --- | | E. | the crust is hotter | |

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| 20. | Which of the following is the best description of what the lithosphere contains?      |  |  | | --- | --- | | A. | continental and oceanic crust |  |  |  | | --- | --- | | B. | both types of crust and the uppermost mantle |  |  |  | | --- | --- | | C. | weak part of the upper mantle |  |  |  | | --- | --- | | D. | upper and lower mantle |  |  |  | | --- | --- | | E. | lower mantle and outer core | |

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| 21. | Which of the following Earth layers is the thickest?      |  |  | | --- | --- | | A. | continental crust |  |  |  | | --- | --- | | B. | oceanic crust |  |  |  | | --- | --- | | C. | mantle |  |  |  | | --- | --- | | D. | outer core | |

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| 22. | The principle of isostasy refers to:      |  |  | | --- | --- | | A. | the difference in the strength of the mantle versus the crust |  |  |  | | --- | --- | | B. | the relationship between regional elevations and thickness of crust |  |  |  | | --- | --- | | C. | how the outer core differs from the inner core |  |  |  | | --- | --- | | D. | how the upper mantle differs from the lower mantle | |

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| 23. | Which of the following is NOT an important difference between continents and oceans?      |  |  | | --- | --- | | A. | thickness of the crust |  |  |  | | --- | --- | | B. | composition of the crust |  |  |  | | --- | --- | | C. | density of the crust |  |  |  | | --- | --- | | D. | whether it is part of the lithosphere |  |  |  | | --- | --- | | E. | elevation | |

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| 24. | Which of the following combinations would result in the highest regional elevations?      |  |  | | --- | --- | | A. | thin, dense crust |  |  |  | | --- | --- | | B. | thick, dense crust |  |  |  | | --- | --- | | C. | thin, less dense crust |  |  |  | | --- | --- | | D. | thick, less dense crust | |

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| 25. | Which layer on this figure is the outer core?         |  |  | | --- | --- | | A. | A |  |  |  | | --- | --- | | B. | B |  |  |  | | --- | --- | | C. | C |  |  |  | | --- | --- | | D. | D |  |  |  | | --- | --- | | E. | E | |

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| 26. | Compared to oceanic crust, continental crust is:      |  |  | | --- | --- | | A. | thinner |  |  |  | | --- | --- | | B. | more dense |  |  |  | | --- | --- | | C. | lighter in color |  |  |  | | --- | --- | | D. | all of these | |

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| 27. | The main difference between the lithosphere and the asthenosphere is the:      |  |  | | --- | --- | | A. | asthenosphere is less rigid |  |  |  | | --- | --- | | B. | asthenosphere flows less easily |  |  |  | | --- | --- | | C. | asthenosphere is cooler |  |  |  | | --- | --- | | D. | asthenosphere has more oceanic crust |  |  |  | | --- | --- | | E. | asthenosphere has more continental crust | |

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| 28. | Based on this topographic profile across the central United States, which region probably has the thickest crust?         |  |  | | --- | --- | | A. | Colorado Rockies |  |  |  | | --- | --- | | B. | Great Plains |  |  |  | | --- | --- | | C. | Mississippi River |  |  |  | | --- | --- | | D. | Appalachian Mountains |  |  |  | | --- | --- | | E. | East Coast | |

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| 29. | Based on this topographic profile across the central United States, which region probably has neither the thinnest nor thickest crust?         |  |  | | --- | --- | | A. | Colorado Rockies |  |  |  | | --- | --- | | B. | Mississippi River |  |  |  | | --- | --- | | C. | East Coast | |