

Name: _____ Date: _____

Answer Key: Sultry Sands and Sunken Cities: Senior Human-Environment Inquiry

How do political boundaries clash with ecological realities? Analyze transboundary resource management and anthropogenic landscape shifts in this rigorous assessment.

1. The 'Great Green Wall' initiative in the Sahel represents a large-scale attempt to mitigate desertification. Which geographical concept best describes the strategic planting of millions of trees to alter local precipitation patterns?

Answer: B) Anthropogenic Modification

Anthropogenic modification refers to the deliberate transformation of the physical environment by human activity to achieve a specific ecological or economic outcome.

2. The 'Resource Curse' (or Paradox of Plenty) suggests that countries with an abundance of non-renewable natural resources often experience less economic growth and worse development outcomes than countries with fewer natural resources.

Answer: A) True

This is a recognized phenomenon in economic geography where dependence on a single resource can lead to currency volatility and neglect of other sectors.

3. The Aral Sea disaster, caused by diverting rivers for cotton irrigation in the former Soviet Union, is a classic example of _____ leading to catastrophic ecological collapse.

Answer: B) Environmental Mismanagement

The diversion of water resources for industry without considering the long-term viability of the source is a hallmark of environmental mismanagement.

4. Singapore's 'Great Island' expansion via land reclamation is an example of overcoming geographical constraints. However, which resulting geopolitical tension is most associated with this practice?

Answer: A) Disputes over sand dredging rights in neighboring waters

Land reclamation requires massive amounts of sediment, leading to tension with neighbors like Indonesia and Cambodia over the ecological impact of sand harvesting.

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5. The concept of 'Transhumance'—the seasonal movement of livestock between mountain and low-land pastures—is a form of human adaptation to vertical climate zones.

Answer: A) True

Transhumance is a specific cultural and economic adaptation that allows pastoralists to exploit different ecological niches at different times of the year.

6. In the context of the Anthropocene, the massive increase in _____ use in the American Midwest has led to a 'Dead Zone' in the Gulf of Mexico due to nutrient runoff.

Answer: C) Nitrogenous Fertilizer

Synthesized fertilizers cause eutrophication when they reach the ocean, depleting oxygen and killing marine life miles away from the source.

7. Which of the following best exemplifies the 'Tragedy of the Commons' in a modern, globalized human-environment context?

Answer: B) Overfishing in international waters beyond national jurisdiction

The Tragedy of the Commons occurs when individual users, acting independently according to their own self-interest, deplete a shared resource.

8. Environmental Justice movements focus exclusively on the protection of endangered species in remote wilderness areas, distinct from urban human health concerns.

Answer: B) False

Environmental Justice specifically addresses the disproportionate exposure of marginalized human communities to pollution and environmental hazards.

9. The construction of the _____ Railway across the permafrost of the Tibetan Plateau required advanced engineering to prevent the heat from the tracks from melting the frozen ground.

Answer: A) Qinghai-Tibet

The Qinghai-Tibet railway is a feat of engineering adaptation, using heat pipes to keep the embankment frozen and stable.

10. How does the 'Inverse Distance Weighting' logic apply to the impact of a natural disaster like a volcano eruption on human settlements?

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Answer: C) The intensity of the environmental effect typically diminishes as distance from the event increases

In geography, the friction of distance suggests that the influence of a phenomenon is usually stronger the closer you are to its point of origin.