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When Landscapes Push Back: 8th Grade Human-Geography Quiz

Analyze the ethics of geoengineering and resource conflict through case studies of Uzbekistan's Aral Sea and futuristic architectural adaptations in Singapore.

1. Which complex feedback loop best explains the desertification of the Aral Sea basin following Soviet irrigation projects?

- A. Modification led to increased salinity, destroying local fisheries and altering regional microclimates.
- B. Adaptation to drought led to the construction of hydroelectric dams that blocked all water flow.
- C. Dependence on salt mining caused the intentional drainage of the sea to reach mineral deposits.
- D. Natural tectonic shifts caused the sea to migrate West, independent of human intervention.

2. True or False: The use of 'Cloud Seeding' by governments to induce rain is an example of human adaptation to natural climate cycles.

- A. True
- B. False

3. In the context of urban density, Singapore's 'Supertrees' in the Gardens by the Bay represent a sophisticated form of ____ aimed at mitigating the Urban Heat Island effect.

- A. Agricultural dependence
- B. Environmental modification
- C. Tectonic adaptation
- D. Cultural assimilation

4. What is the primary geographical challenge addressed by the construction of the Great Green Wall across the African Sahel?

- A. Preventing the spread of invasive aquatic species in the Niger River
- B. Modifying the landscape to halt desertification and soil erosion
- C. Adapting to rising sea levels by creating a natural buffer zone
- D. Reducing dependence on solar energy by planting shade-heavy forests

5. True or False: The shift from nomadic pastoralism to sedentary industrial farming is an example of decreasing human dependence on the environment.

- A. True
- B. False

6. When a society builds earthquake-resistant skyscrapers, such as Taipei 101, they are demonstrating ____, because they are adjusting human structures to survive the environment without changing the seismic activity itself.

- A. Modification

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- B. Domestication
- C. Adaptation
- D. Degradation

7. Which of the following describes a 'consequence' of human-environment interaction that is specifically considered a 'Transboundary Externalities'?

- A. A farmer using a backyard compost bin to improve soil quality.
- B. A city building a local park to reduce the heat island effect.
- C. Industrial runoff from one country polluting a river that flows through three other nations.
- D. A family moving to a higher elevation to escape seasonal flooding.

8. The Quechua people of the Andes developed larger lung capacities over generations to survive at high altitudes. This biological change is a form of _____.

- A. Evolutionary modification
- B. Physiological adaptation
- C. Environmental dependence
- D. Technological innovation

9. How does the 'Resource Curse' (or Paradox of Plenty) illustrate the complexity of human dependence on the environment?

- A. Countries with fewer resources are forced to modify their environments more heavily.
- B. Over-reliance on one valuable natural resource can lead to economic instability and conflict.
- C. Humans are no longer dependent on the environment due to the rise of synthetic materials.
- D. Extracting resources always leads to a positive adaptation in the local workforce.

10. True or False: The use of terrace farming in the Rice Terraces of the Philippine Cordilleras is a method that combines modification of land shape with adaptation to steep terrain.

- A. True
- B. False