

Environment Science short answer type question

sample short answer question on Environment science

1. **What is the greenhouse effect, and why is it important?**

Answer: The greenhouse effect is the process by which greenhouse gases like carbon dioxide, methane, and water vapor trap heat in the Earth's atmosphere, keeping the planet warm enough to sustain life.

2. **Define biodiversity and explain its significance.**

Answer: Biodiversity refers to the variety of life forms within an ecosystem, including plants, animals, and microorganisms. It is essential for ecosystem stability, resilience, and the provision of ecosystem services like clean air, water, and food.

3. **What is an ecological footprint?**

Answer: An ecological footprint measures the impact of human activities on Earth's ecosystems, expressed as the amount of land and water area required to sustain resource use and waste production.

4. **Name three renewable energy sources.**

Answer: Solar energy, wind energy, and hydropower are three renewable energy sources.

5. **What is deforestation, and what are its major impacts?**

Answer: Deforestation is the large-scale removal of forests, often for agriculture, logging, or urban development. It leads to habitat loss, reduced biodiversity, and increased carbon dioxide levels, contributing to climate change.

6. Which one is native land of Kahwa in India, where it is grown?

Native Land of Kahwa in India

Kahwa, a traditional green tea preparation, originates from **Kashmir** in India. It is grown in the valleys of Kashmir, where the climate is ideal for cultivating the specific green tea leaves and saffron often used in Kahwa.

7. What is the main objective of UNESCO.

Main Objective of UNESCO

The main objective of UNESCO (United Nations Educational, Scientific and Cultural Organization) is to promote international collaboration in education, science, culture, and communication to foster peace, eradicate poverty, and contribute to sustainable development and intercultural dialogue.

8. How do you determine what filtration method to use to remove contaminants in a water sample?

How to Determine the Filtration Method to Remove Contaminants in a Water Sample

The filtration method is determined by:

- **Type of Contaminants:**
 - Particulate matter: Sand or multimedia filters.
 - Microbial contaminants: UV sterilization or membrane filtration.
 - Chemical pollutants: Activated carbon or reverse osmosis.
- **Water Source:** Groundwater, surface water, or wastewater.

- **Purpose of Filtration:** Drinking water, industrial use, or irrigation. A water quality test is conducted to identify contaminants and select the appropriate filtration method.

9. What is the cause of dropping down the water table (ground water level)?

Causes of Dropping Groundwater Levels

1. **Overextraction:** Excessive pumping for agriculture, industries, and domestic use.
2. **Deforestation:** Reduced infiltration of rainwater into the soil.
3. **Urbanization:** Increased surface runoff due to impervious surfaces.
4. **Climate Change:** Reduced rainfall and increased evaporation.
5. **Inefficient Irrigation Practices:** Excessive water use in farming.

10. What is the effect of plastic burning on environment?

Effects of Plastic Burning on the Environment

- **Air Pollution:** Releases toxic gases like dioxins, furans, and carbon monoxide, harmful to health.
- **Greenhouse Gas Emissions:** Contributes to climate change by releasing carbon dioxide.
- **Soil and Water Contamination:** Residual ash from burning can leach harmful chemicals into the soil and water.
- **Health Hazards:** Exposure to emitted toxins can cause respiratory and cardiovascular problems.

11. Write down the Composition of our body & air according to Ancient Indian knowledge.

- **Body Composition:** The human body is said to be composed of the *Panchamahabhutas* (five elements):

- **Earth (Prithvi):** Solid structures like bones and muscles.
- **Water (Apas):** Fluids like blood and lymph.
- **Fire (Agni):** Metabolism and energy.
- **Air (Vayu):** Breathing and movement.
- **Space (Akasha):** Cavities in the body.

- **Air Composition:** Ancient texts like Ayurveda describe air as a balance of **Vata dosha**, comprising movement, dryness, and coldness. This is philosophical and symbolic rather than scientific.

sample short answer question on endemic species of India

1. **What are endemic species? Give one example from India.**

Answer: Endemic species are those that are found exclusively in a specific geographic area and nowhere else in the world. Example: The Nilgiri Tahr, endemic to the Western Ghats of India.

2. **Name two endemic plant species found in India.**

Answer: Two endemic plant species in India are *Saussurea obvallata* (Brahma Kamal) and *Cycas beddomei*.

3. **Why is it important to conserve endemic species?**

Answer: Conserving endemic species is crucial because they contribute to the ecological balance, are often unique to their habitat, and can be vital for scientific research and cultural heritage.

4. **List two endemic animals of India and the regions where they are found.**

Answer:

- Lion-tailed Macaque: Found in the Western Ghats.
- Kashmir Stag (Hangul): Found in the forests of Jammu and Kashmir.

5. **How do endemic species contribute to biodiversity hotspots like the Western Ghats?**

Answer: Endemic species increase the unique biodiversity of hotspots, making them crucial for global conservation efforts and ecosystem services specific to the region.

6. **Black pepper & spices are endemic to which region?**

Answer: The Western Ghats, a biodiversity hotspot, provide the ideal climate and conditions for the growth of black pepper, cardamom, nutmeg, and other spices, making it a globally recognized center for spice cultivation.

sample short answer question on Natural Resource Management

1. **What is natural resource management (NRM)?**

Answer: Natural resource management is the sustainable utilization, conservation, and monitoring of natural resources such as water, soil, forests, and wildlife to meet present and future needs.

2. **Why is sustainable management of natural resources important?**

Answer: Sustainable management ensures that natural resources are preserved and used efficiently, preventing depletion, maintaining ecological balance, and supporting future generations.

3. **Name two methods used in water resource management.**

Answer: Rainwater harvesting and watershed management are two methods of water resource management.

4. **What is the role of community participation in natural resource management?**

Answer: Community participation ensures that local knowledge and needs are integrated into resource management practices, fostering stewardship, equitable benefits, and long-term sustainability.

5. **How does afforestation help in resource management?**

Answer: Afforestation helps in resource management by increasing forest cover, improving soil fertility, preventing erosion, and contributing to carbon sequestration, which mitigates climate change.

sample short answer question on Natural Resource Management in Asia

1. **Name two natural resources that are extensively managed in Asia.**

Answer: Water and forests are two key natural resources extensively managed in Asia.

2. **What are the major challenges in natural resource management in Asia?**

Answer: Major challenges include deforestation, overexploitation of water resources,

loss of biodiversity, and pollution caused by rapid industrialization and population growth.

3. **Give an example of a successful natural resource management initiative in Asia.**

Answer: The Mekong River Commission is an example of successful resource management, focusing on sustainable use and management of the Mekong River basin resources across multiple countries in Southeast Asia.

4. **How does agriculture impact natural resource management in Asia?**

Answer: Agriculture consumes significant water resources, contributes to deforestation for farmland, and can lead to soil degradation and pollution, requiring sustainable practices to balance productivity and conservation.

5. **What role do international organizations play in natural resource management in Asia?**

Answer: International organizations like the Asian Development Bank (ADB) provide funding, expertise, and support for sustainable resource management projects, including renewable energy, water conservation, and reforestation programs.

sample short answer question on Food Resource Management in Asia

1. **What is food resource management?**

Answer: Food resource management involves planning, distribution, and sustainable practices to ensure the availability, accessibility, and utilization of food for all populations.

2. **Name one major challenge to food resource management in Asia.**

Answer: One major challenge is the increasing pressure on agricultural land due to population growth and urbanization.

3. **What is the Green Revolution, and how did it impact food production in Asia?**

Answer: The Green Revolution was a period of agricultural innovation during the mid-20th century that introduced high-yield crop varieties, improved irrigation, and modern farming techniques. It significantly increased food production in countries like India and Pakistan.

4. **How does climate change affect food resource management in Asia?**

Answer: Climate change leads to unpredictable weather patterns, droughts, floods, and reduced agricultural productivity, making food resource management more challenging.

5. **Mention one initiative promoting sustainable food resource management in Asia.**

Answer: The Zero Hunger Initiative by the United Nations aims to eliminate hunger and promote sustainable agricultural practices in Asian countries.

sample short answer question on Resettlement policy

1. **What is a resettlement policy?**

Answer: A resettlement policy is a framework established by governments or organizations to relocate and rehabilitate individuals or communities displaced due to development projects, natural disasters, or conflicts.

2. **Why is a resettlement policy important?**

Answer: A resettlement policy ensures the rights and livelihoods of displaced populations are protected, providing them with adequate compensation, housing, and access to resources and opportunities.

3. **Name one challenge in implementing resettlement policies.**

Answer: One major challenge is ensuring fair compensation and livelihood restoration for displaced people while addressing resistance from affected communities.

4. **Give an example of a resettlement policy in India.**

Answer: India's National Rehabilitation and Resettlement Policy, 2007, aims to provide fair compensation, livelihood opportunities, and social integration for those displaced by development projects.

5. **How do resettlement policies impact local ecosystems?**

Answer: Poorly planned resettlement can lead to deforestation, loss of biodiversity, and increased pressure on natural resources in the areas where displaced people are relocated.

sample short answer question on Biodiversity

1. **What is biodiversity?**

Answer: Biodiversity refers to the variety of life forms on Earth, including different species of plants, animals, microorganisms, and their ecosystems.

2. **Why is biodiversity important?**

Answer: Biodiversity is essential for ecosystem stability, providing services like pollination, climate regulation, and resources such as food, medicine, and raw materials.

3. **Name two biodiversity hotspots in India.**

Answer: The Western Ghats and the Himalayas are two biodiversity hotspots in India.

4. **What is the main cause of biodiversity loss?**

Answer: Habitat destruction due to deforestation, urbanization, and agriculture is the main cause of biodiversity loss.

5. **What is the difference between species richness and species diversity?**

Answer: Species richness refers to the number of species in an area, while species diversity considers both the number of species and the evenness of their distribution.

sample short answer question on Conservation of Biodiversity

1. **What is biodiversity conservation?**

Answer: Biodiversity conservation refers to the protection, preservation, and sustainable management of ecosystems, species, and genetic diversity to prevent extinction and maintain ecological balance.

2. **Name two methods of biodiversity conservation.**

Answer: In-situ conservation (protecting species in their natural habitats, e.g., national parks) and ex-situ conservation (protecting species outside their natural habitats, e.g., zoos or seed banks).

3. **Why is it important to conserve biodiversity?**

Answer: Biodiversity conservation is vital for ecosystem stability, supporting human livelihoods, providing natural resources, and ensuring resilience against environmental changes.

4. **What is the role of protected areas in biodiversity conservation?**

Answer: Protected areas like wildlife sanctuaries, national parks, and biosphere reserves safeguard ecosystems and species, preventing habitat destruction and poaching.

5. **Name one international convention aimed at biodiversity conservation.**

Answer: The Convention on Biological Diversity (CBD) is an international treaty aimed at promoting the conservation and sustainable use of biodiversity.