G – 1
NATURAL RESOURCES AND THEIR USES

VERY SHORT ANSWER TYPE QUESTIONS

1. **What is a natural resource?**

Ans: A natural resource is anything obtained from nature that is used by humans, like water, minerals, forests, fish, and wildlife.

2. **When does nature become a resource?**

Ans: Nature becomes a resource when its utility is perceived and utilized by humans.

3. **What is meant by restoration in nature?**

Ans: Restoration in nature refers to the process of renewing and revitalizing degraded or damaged ecosystems to their original or near-original state.

4. **What is the natural resource curse?**

Ans: The natural resource curse is a phenomenon where countries rich in natural resources experience poor economic growth, corruption, and social issues despite their wealth.

SHORT ANSWER TYPE QUESTIONS

1. **What are renewable resources?**

Ans: Renewable resources are natural resources that can replenish themselves over time, like solar energy, wind, water, forests, and biomass.

2. **What are non-renewable resources?**

Ans: Non-renewable resources are natural resources that do not replenish quickly and are finite, like coal, petroleum, natural gas, and minerals.

3. **List any two problems of soil degradation and suggest one solution for each.**

Ans: Problem 1: Erosion - Solution: Afforestation and contour farming can help reduce soil erosion.

Problem 2: Nutrient Depletion - Solution: Crop rotation and use of organic fertilizers can help replenish soil nutrients.

4. **State two reasons why non-renewable resources must be used judiciously.**

Ans: Limited Availability: Non-renewable resources like coal and oil are finite; once depleted, they can't be replenished.
Environmental Impact: Overuse leads to pollution, climate change, and health issues, harming ecosystems and humans.

LONG ANSWER TYPE QUESTIONS

1. **Describe how natural resources are classified.**

Ans: Natural resources are grouped based on origin, renewability, and development stage.

Origin: Biotic – derived from living organisms (forests, wildlife).

Origin: Abiotic – obtained from non□living things (minerals, water).

Renewability: Renewable – can replenish naturally (solar, wind, water).

Renewability: Non□renewable – finite and form over millions of years (coal, oil).

Development: Potential – yet to be explored; Actual – currently being used.

2. **Explain one major environmental impact of cement production and describe the measures being taken to address it.**

Ans: Cement production significantly contributes to CO2 emissions, a major greenhouse gas driving climate change. Measures include:

- Using alternative fuels like biomass and waste materials.
- Improving energy efficiency in kilns.
- Developing blended cements with supplementary materials.
- Exploring carbon capture and storage technologies.

These steps aim to reduce the carbon footprint of cement production, mitigating its environmental impact.

3. **Differentiate between renewable and non-renewable resources with suitable examples from India. How does the management of these resources affect long-term sustainability?**

Ans: Renewable Resources: Replenish naturally, e.g., solar energy (Rajasthan), wind energy (Tamil Nadu), biomass.

- Non-renewable Resources: Finite, e.g., coal (Jharkhand), petroleum.Management
- Impact: Effective use of renewables ensures sustainability; judicious use of non-renewables extends their availability.
- Long-term Sustainability: Sustainable practices promote resource availability, reduce environmental degradation, and support ecosystem balance.
- Outcome: Ensures resources meet future needs and support economic growth.

4. **Describe the causes, extent, and impacts of groundwater overexploitation in Punjab. How does this case highlight the long-term consequences of unsustainable agricultural practices?**

Ans: Causes: Intensive irrigation for rice-wheat cultivation drives groundwater overexploitation in Punjab.

- Extent: Water tables have fallen drastically, with many areas exceeding safe limits.
- Impacts: Increased pumping costs, higher energy consumption, and soil salinization are major issues.
- Consequences: Unsustainable agriculture leads to resource depletion, ecosystem damage, and future water scarcity.
- Implication: This highlights the need for sustainable water management and cropping practices to ensure long-term food security and livelihoods.