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What Are Resources

Mona and Raju were helping Amma to clean their house. Amma explained that resources are anything that can be used to satisfy a need. Examples include water, electricity, rickshaw, vegetables, and textbooks. These items have utility or usability, which makes them resources. The value or worth of a resource comes from its use or utility. Some resources have economic value, while others may not, but all satisfy human needs. For example, metals have economic value, while a beautiful landscape may not, yet both are important.

Exam Questions

Q1: What is a resource? Give two examples.

A1: A resource is anything that can be used to satisfy a need. Examples include water and electricity.

Q2: Does every resource have economic value? Explain.

A2: No, not every resource has economic value. Some resources like metals have

economic value, while others like a beautiful landscape may not, but both satisfy human needs.

Classification of Resources

Resources are generally classified into three types: natural resources, human-made resources, and human resources.

Natural Resources

Natural resources are drawn from nature and used without much modification. Examples include air, water, soil, and minerals. They can be further divided into renewable and non-renewable resources.

Renewable Resources are those that get replenished quickly, such as solar energy and wind energy. However, careless use of renewable resources like water, soil, and forests can reduce their availability.

Non-renewable Resources have a limited stock and take thousands of years to replenish, such as coal, petroleum, and natural gas.

Human-Made Resources

Human-made resources are created by modifying natural resources. For example, iron ore becomes a resource when it is extracted and used to make tools, buildings, and vehicles. Technology is also considered a human-made resource.

Human Resources

Human resources refer to people's knowledge, skills, and abilities. Education and health improve the quality of human resources, enabling people to create more resources. Human resource development focuses on improving these skills.

Exam Questions

Q1: What are renewable and non-renewable resources? Give examples.

A1: Renewable resources are replenished quickly, like solar energy and wind energy. Non-renewable resources have limited stock and take a long time to replenish, like coal and petroleum.

Q2: How do human-made resources differ from natural resources?

A2: Human-made resources are created by modifying natural resources, such as making tools or buildings from raw materials. Natural resources are used in their original form.

Factors Affecting Resources

The distribution of natural resources depends on physical factors such as terrain, climate, and altitude. These factors cause unequal distribution of resources across the earth. Time and technology also influence how substances become resources. For example, the discovery of fire led to cooking, and the invention of the wheel led to new modes of transport. Technology like hydroelectricity converts fast-flowing water into energy.

Exam Questions

Q1: What physical factors affect the distribution of natural resources?

A1: Terrain, climate, and altitude affect the distribution of natural resources.

Q2: How do time and technology influence resources?

A2: Time and technology help convert substances into resources by creating new uses and inventions, such as fire for cooking and hydroelectricity for energy.

Conserving Resources

Conserving resources means using them carefully and allowing time for renewal. Sustainable development balances current needs with future resource availability. Conservation methods include reducing consumption, recycling, and reusing. Everyone can contribute to conserving resources to protect the environment and ensure resources last for future generations.

Principles of sustainable development include respecting all forms of life, improving human life quality, conserving earth's vitality and diversity, minimizing resource depletion, changing personal attitudes, and enabling communities to care for their environment.

Exam Questions

Q1: What is sustainable development?

A1: Sustainable development is using resources carefully to meet present needs while ensuring future generations can also meet their needs.

Q2: Name two ways individuals can help conserve resources.

A2: Individuals can conserve resources by reducing consumption and recycling materials.

Solved Examples

Example 1: Identify whether the following are renewable or non-renewable resources: solar energy, coal, wind energy, petroleum.

Solution: Solar energy and wind energy are renewable resources. Coal and petroleum are non-renewable resources.

Example 2: Explain why human resources are important.

Solution: Human resources are important because people's knowledge, skills, and abilities help create and manage other resources, leading to development and progress.

Practice Set

Easy:

- Define a resource with two examples.
- What are natural resources?

Moderate:

- Explain the difference between renewable and non-renewable resources.
- List three human-made resources and explain how they are made.

Challenging:

- Discuss the importance of sustainable development in conserving resources.
- How do technology and human resources contribute to resource development?

Answer Key

Easy:

- A resource is anything that satisfies a need. Examples: water, electricity.
- Natural resources are resources obtained from nature without much modification.

Moderate:

- Renewable resources replenish quickly; non-renewable have limited stock and take long to replenish.

- Human-made resources are made by modifying natural resources, e.g., buildings, vehicles, tools.

Challenging:

- Sustainable development ensures resources are used wisely to meet present and future needs.
- Technology and human skills help create new resources and improve resource use.

Quick Reference

- **Resource:** Anything that satisfies a need.
- **Natural Resources:** Resources from nature, renewable or non-renewable.
- **Human-Made Resources:** Resources made by modifying natural resources.
- **Human Resources:** People's knowledge, skills, and abilities.
- **Sustainable Development:** Using resources to meet present and future needs.

Glossary

- **Patent:** Exclusive right over an idea or invention.
- **Technology:** Application of knowledge and skill in making or doing things.
- **Stock of Resource:** Amount of resource available for use.
- **Sustainable Development:** Careful use of resources to meet present and future needs.
- **Human Resource Development:** Improving people's skills and abilities.

Chronology of Resource Development

Time Period / Year	Event / Change	Importance
Discovery of Fire (Prehistoric)	Use of fire for cooking and heating	Improved food preparation and survival

Invention of Wheel (Prehistoric)	Development of transport methods	Facilitated movement and trade
Industrial Revolution (18th–19th Century)	Use of machines and technology	Increased production and resource use
Development of Hydroelectricity (20th Century)	Use of water flow to generate electricity	Renewable energy source

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