

- ✓ 1. **What are the main layers of Earth's atmosphere?**
a) Lithosphere, Troposphere, Stratosphere
b) Troposphere, Stratosphere, Mesosphere, Thermosphere, Exosphere
c) Lithosphere, Hydrosphere, Biosphere, Atmosphere
d) Troposphere, Stratosphere, Lithosphere, Exosphere
Correct Answer: b) Troposphere, Stratosphere, Mesosphere, Thermosphere, Exosphere
2. **Which type of ecosystem includes oceans, seas, and coral reefs?**
a) Freshwater ecosystem
b) Marine ecosystem
c) Terrestrial ecosystem
d) Artificial ecosystem
Correct Answer: b) Marine ecosystem
- ✓ 3. **Energy flow in an ecosystem is:**
a) Cyclic
b) One-way
c) Random
d) Bidirectional
Correct Answer: b) One-way
- ✓ Energy flow in an ecosystem is typically one-way, from the sun to producers (like plants) through photosynthesis, then to consumers (herbivores, carnivores), and finally to decomposers. Energy is lost at each trophic level in the form of heat, making the flow unidirectional.

Unit II: Human Activities and Environmental Impact

- ✓ 4. **Which factor contributes significantly to soil degradation?**
a) Mulching
b) Overgrazing
c) Crop rotation
d) Controlled irrigation
Correct Answer: b) Overgrazing
- ✓ 5. **What is the primary cause of waterlogging in agricultural fields?**
a) Over-irrigation
b) Crop rotation
c) Use of organic farming
d) Lack of fertilizers
Correct Answer: a) Over-irrigation
6. **What are the harmful effects of eutrophication?**
a) Soil enrichment
b) Increased oxygen levels
c) Depletion of oxygen and aquatic life death
d) Improved water clarity
Correct Answer: c) Depletion of oxygen and aquatic life death
7. **Which gas is primarily released during deforestation?**
a) Oxygen
b) Carbon dioxide
c) Methane

Eutrophication is the process in which a body of water, such as a lake, river, or estuary, becomes enriched with excess nutrients (mainly nitrogen and phosphorus), which leads to excessive growth of algae and other aquatic plants. This nutrient enrichment can come from various sources, including agricultural runoff (fertilizers), sewage, industrial waste, and stormwater runoff.

Consequences of Eutrophication:

Hypoxia or Anoxia: Low or no oxygen levels in the water can create "dead zones" where most aquatic life cannot survive.

d) Nitrogen

Correct Answer: b) Carbon dioxide

Sustainability Standards and Practices

✓ 8. **What does ISO 14001 focus on?**

- a) Energy management
- b) Sustainable development goals
- c) Environmental management systems
- d) Green building practices

Correct Answer: c) Environmental management systems

✓ 9. **Which of the following is NOT a level of LEED certification?**

- a) Silver
- b) Bronze
- c) Gold
- d) Platinum

Correct Answer: b) Bronze

✓ 10. **What is the primary goal of the UN's Sustainable Development Goals (SDGs)?**

- a) Economic growth in developed countries
- b) Addressing global challenges like poverty, inequality, and climate change
- c) Promoting industrialization in developing nations
- d) Expanding urban infrastructure

Correct Answer: b) Addressing global challenges like poverty, inequality, and climate change

Transportation and Industrial Impact

11. **Which activity is a primary source of greenhouse gas emissions in transportation?**

- a) Soil conservation
- b) Vehicle emissions
- c) Organic farming
- d) Construction of railroads

Correct Answer: b) Vehicle emissions

✓ 12. **What is a major environmental consequence of mining?**

- a) Increased vegetation
- b) Decreased biodiversity and soil erosion
- c) Improved water quality
- d) Expansion of wetlands

Correct Answer: b) Decreased biodiversity and soil erosion

13. **What is one measure to mitigate industrial water pollution?**

- a) Constructing large factories
- b) Using untreated water
- c) Proper treatment of effluents
- d) Increased mining activities

Correct Answer: c) Proper treatment of effluents

Introduction to Environment

- ✓ 1. **What does the environment primarily consist of?**
a) Only air and water
b) Biotic and abiotic components
c) Climate and weather patterns
d) Human-made structures
Correct Answer: b) Biotic and abiotic components
2. **Which of the following is NOT a part of the abiotic environment?**
a) Rocks
b) Soil
c) Animals
d) Water
Correct Answer: c) Animals
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Structure of Atmosphere

3. **Which layer of the atmosphere contains the ozone layer?**
a) Troposphere
b) Stratosphere
c) Mesosphere
d) Thermosphere
Correct Answer: b) Stratosphere
4. **What is the role of the ozone layer?**
a) Protects the Earth from gamma radiation
b) Maintains Earth's temperature
c) Shields Earth from harmful UV radiation
d) Helps in cloud formation
Correct Answer: c) Shields Earth from harmful UV radiation
5. **In which atmospheric layer do most weather events occur?**
a) Troposphere
b) Stratosphere
c) Mesosphere
d) Exosphere
Correct Answer: a) Troposphere
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Layers of the Earth

6. **Which layer of Earth is composed mainly of molten rock?**
a) Crust
b) Mantle
c) Outer core
d) Inner core
Correct Answer: b) Mantle

7. **What is the innermost layer of Earth called?**

- a) Crust
- b) Mantle
- c) Outer core
- d) Inner core

Correct Answer: d) Inner core

8. **Which layer of the Earth is the thinnest?**

- a) Crust
- b) Mantle
- c) Outer core
- d) Inner core

Correct Answer: a) Crust

Ecosystem

✓ 9. **What is an ecosystem?**

- a) Interaction between biotic components only
- b) A community of organisms interacting with each other and their environment
- c) A system of water and nutrients flow
- d) A man-made environment

Correct Answer: b) A community of organisms interacting with each other and their environment

10. **Which is NOT an example of a natural ecosystem?**

- a) Forest
- b) Pond
- c) Aquarium
- d) Grassland

Correct Answer: c) Aquarium

11. **Which type of ecosystem is dominated by human activities?**

- a) Natural ecosystem
- b) Aquatic ecosystem
- c) Artificial ecosystem
- d) Terrestrial ecosystem

Correct Answer: c) Artificial ecosystem

Types of Ecosystems

✓ 12. **What is a characteristic feature of a terrestrial ecosystem?**

- a) Presence of aquatic plants
- b) High salinity levels
- c) Land-based habitat
- d) Absence of light

Correct Answer: c) Land-based habitat

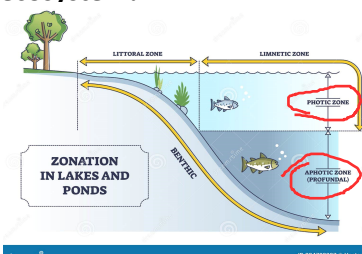
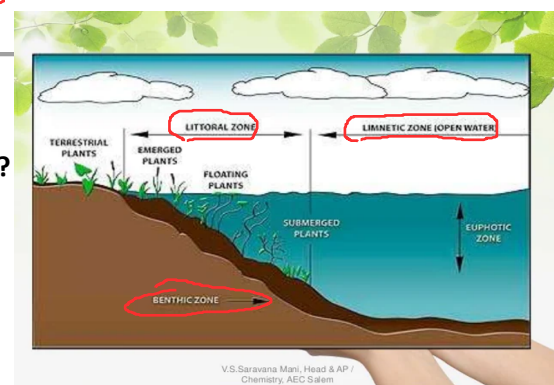
- ✓ 13. Which of these is an example of an aquatic ecosystem?
- a) Desert
 - b) Grassland
 - c) Wetlands
 - d) Savanna
- Correct Answer:** c) Wetlands
14. What is the primary energy source for most ecosystems?
- a) Nutrients
 - b) Sunlight
 - c) Wind
 - d) Fossil fuels
- Correct Answer:** b) Sunlight

Flow of Energy and Nutrients in Ecosystems

15. In an ecosystem, energy flow is:
- a) Recyclable
 - b) Unidirectional
 - c) Bi-directional
 - d) Stored indefinitely
- Correct Answer:** b) Unidirectional
16. What is the process of nutrient cycling in an ecosystem called?
- a) Energy flow
 - b) Biomagnification
 - c) Biogeochemical cycling
 - d) Nutritional flow
- Correct Answer:** c) Biogeochemical cycling
- ✓ 17. Which organisms are responsible for breaking down dead matter in an ecosystem?
- a) Producers
 - b) Consumers
 - c) Decomposers
 - d) Scavengers
- Correct Answer:** c) Decomposers

Zones in Pond Ecosystem

18. Which zone in a pond ecosystem receives the most sunlight?
- a) Littoral zone
 - b) Limnetic zone
 - c) Profundal zone
 - d) Benthic zone
- Correct Answer:** a) Littoral zone
19. Which organisms are predominantly found in the profundal zone of a pond ecosystem?
- a) Floating plants



- b) Zooplankton
- c) Decomposers
- d) Algae

Correct Answer: c) Decomposers

20. Which zone in a pond ecosystem is home to rooted plants?

- a) Littoral zone
- b) Limnetic zone
- c) Profundal zone
- d) Benthic zone

Correct Answer: a) Littoral zone

Aquatic Ecosystem: Marine

✓ 21. What characterizes a marine ecosystem?

- a) Low salinity
- b) High salinity and biodiversity
- c) Land-dominated vegetation
- d) Presence of amphibians

Correct Answer: b) High salinity and biodiversity

22. Which of the following is a major producer in marine ecosystems?

- a) Phytoplankton
- b) Zooplankton
- c) Fish
- d) Crustaceans

Correct Answer: a) Phytoplankton

✓ 23. What is the largest marine ecosystem on Earth?

- a) Coral reefs
- b) Estuaries
- c) Open ocean
- d) Mangroves

Correct Answer: c) Open ocean

1. What are the two primary components of the environment?

- a) Living and non-living components
- b) Air and water
- c) Plants and animals
- d) Rocks and minerals

Correct Answer: a) Living and non-living components

2. What layer of the atmosphere contains most of the Earth's weather?

- a) Stratosphere
- b) Troposphere
- c) Mesosphere
- d) Thermosphere

Correct Answer: b) Troposphere

3.

Which layer of the Earth is primarily solid iron and nickel?

- a) Crust
- b) Mantle
- c) Outer core
- d) Inner core

Correct Answer: d) Inner core

4. **What is an ecosystem?**

- a) A natural community of organisms interacting with their environment
- b) A collection of non-living entities
- c) A man-made environment
- d) A single species population

Correct Answer: a) A natural community of organisms interacting with their environment

5. **Which is an example of a terrestrial ecosystem?**

- a) Ocean
- b) Wetlands
- c) Forest
- d) Coral reef

Correct Answer: c) Forest

6. **Energy flow in an ecosystem is:**

- a) Cyclic
- b) One-directional
- c) Stored indefinitely
- d) Random

Correct Answer: b) One-directional

7.

What are the producers in a pond ecosystem?

- a) Zooplankton
- b) Phytoplankton
- c) Fishes
- d) Decomposers

Correct Answer: b) Phytoplankton

8.

Which zone in a pond is characterized by minimal sunlight and decomposers?

- a) Littoral zone
- b) Limnetic zone
- c) Profundal zone
- d) Benthic zone

Correct Answer: c) Profundal zone

9. **What is the role of decomposers in an ecosystem?**

- a) Store energy
- b) Convert sunlight into chemical energy
- c) Break down dead organic matter
- d) Consume producers

Correct Answer: c) Break down dead organic matter

10. **Which type of ecosystem has the highest salinity?**

- a) Freshwater ecosystem

- b) Marine ecosystem
- c) Forest ecosystem
- d) Desert ecosystem

Correct Answer: b) Marine ecosystem

✓ 11. **What is the main characteristic of the limnetic zone in a pond ecosystem?**

- a) No sunlight
- b) Presence of rooted plants
- c) Open water with floating algae
- d) High decomposition activity

Correct Answer: c) Open water with floating algae

12. **What happens to energy as it moves up the trophic levels?**

- a) It increases
- b) It remains the same
- c) It decreases
- d) It cycles back

Correct Answer: c) It decreases

13. **Which ecosystem service is provided by wetlands?**

- a) Soil erosion
- b) Water filtration
- c) Carbon dioxide emissions
- d) Industrial growth

Correct Answer: b) Water filtration

14. **What is biogeochemical cycling?**

- a) Movement of organisms within an ecosystem
- b) Cycling of nutrients like carbon and nitrogen
- c) Energy transfer between producers and consumers
- d) Weather changes in ecosystems

Correct Answer: b) Cycling of nutrients like carbon and nitrogen

15. **What is the main producer in marine ecosystems?**

- a) Zooplankton
- b) Phytoplankton
- c) Coral
- d) Seaweed

Correct Answer: b) Phytoplankton

Unit II: Human Activities and Environmental Impact

16. **What is the major consequence of soil erosion?**

- a) Increased crop yield
- b) Loss of nutrients
- c) Improved soil fertility
- d) Enhanced vegetation growth

Correct Answer: b) Loss of nutrients

17. Which of the following causes soil erosion?

- a) Controlled irrigation
- b) Overgrazing
- c) Crop rotation
- d) Mulching

Correct Answer: b) Overgrazing

18. What is eutrophication?

- a) Accumulation of oxygen in water bodies
- b) Increase in biodiversity
- c) Nutrient enrichment causing oxygen depletion in water bodies
- d) Removal of toxins from the environment

Correct Answer: c) Nutrient enrichment causing oxygen depletion in water bodies

19. Which gas is released in high amounts during deforestation?

- a) Oxygen
- b) Carbon dioxide
- c) Nitrogen
- d) Methane

Correct Answer: b) Carbon dioxide

✓ 20. What is waterlogging?

- a) Accumulation of water in plant roots, reducing oxygen supply
- b) Overuse of water for irrigation
- c) Excessive water in rivers
- d) Underground water storage

Correct Answer: a) Accumulation of water in plant roots, reducing oxygen supply

21. Which method helps reduce soil erosion?

- a) Overgrazing
- b) Deforestation
- c) Maintaining vegetation cover
- d) Slash-and-burn agriculture

Correct Answer: c) Maintaining vegetation cover

22. What is the primary cause of water contamination in agriculture?

- a) Use of pesticides and fertilizers
- b) Crop rotation
- c) Organic farming
- d) Controlled irrigation

Correct Answer: a) Use of pesticides and fertilizers

✓ 23. What is a significant effect of mining on forests?

- a) Increased biodiversity
- b) Land reclamation
- c) Deforestation
- d) Soil formation

Correct Answer: c) Deforestation

✓ 24. What is the major pollutant from industrial effluents?

- a) Fertilizers

- b) Organic wastes
 - c) Heavy metals
 - d) Carbon dioxide
- Correct Answer:** c) Heavy metals

25. **Which of the following is a renewable building material?**

- a) Cement
- b) Steel
- c) Glass
- d) Wood

Correct Answer: d) Wood

26. **Which of the following leads to noise pollution?**

- a) Soil erosion
- b) Transportation
- c) Crop cultivation
- d) Vegetation growth

Correct Answer: b) Transportation

27. **What is the primary goal of ISO 14001?**

- a) Reduce energy consumption
- b) Promote environmental management systems
- c) Develop renewable energy
- d) Ensure water conservation

Correct Answer: b) Promote environmental management systems

28. **Which of the following gases is a greenhouse gas?**

- a) Oxygen
- b) Methane
- c) Nitrogen
- d) Argon

Correct Answer: b) Methane

29. **What are the primary effects of using fossil fuels?**

- a) Enhanced air quality
- b) Ozone depletion and global warming
- c) Soil conservation
- d) Reduced water contamination

Correct Answer: b) Ozone depletion and global warming

30. **What is organic farming?**

- a) Farming using chemical pesticides
- b) Farming without synthetic chemicals
- c) Farming in urban areas
- d) Industrial-scale farming

Correct Answer: b) Farming without synthetic chemicals

Unit II: Industrialization

31. **Which sector uses the largest amount of fossil fuels?**

- a) Agriculture

- b) Industry
 - c) Transportation
 - d) Housing
- Correct Answer:** b) Industry

32. **What is a significant consequence of oil spills?**

- a) Improved water quality
- b) Ecosystem devastation
- c) Increased biodiversity
- d) Soil fertility enhancement

Correct Answer: b) Ecosystem devastation

33. **What is the primary pollutant released during the smelting process in industries?**

- a) Carbon monoxide
- b) Sulfur dioxide
- c) Methane
- d) Ozone

Correct Answer: b) Sulfur dioxide

34. **Which practice helps reduce industrial water pollution?**

- a) Using untreated water
- b) Treating effluents properly
- c) Increasing mining activities
- d) Building more factories

Correct Answer: b) Treating effluents properly

Transportation

35. **What is the primary greenhouse gas emitted by vehicles?**

- a) Carbon dioxide
- b) Methane
- c) Sulfur dioxide
- d) Ammonia

Correct Answer: a) Carbon dioxide

36. **Which of the following is a major impact of transportation infrastructure?**

- a) Improved biodiversity
- b) Habitat fragmentation
- c) Decreased land use
- d) Reduced greenhouse gas emissions

Correct Answer: b) Habitat fragmentation

37. **What is a major environmental impact of road construction?**

- a) Soil conservation
- b) Deforestation
- c) Water purification
- d) Increased vegetation growth

Correct Answer: b) Deforestation

38. **What type of pollution is commonly caused by transportation activities?**

- a) Soil pollution
- b) Air and noise pollution
- c) Thermal pollution
- d) Waterlogging

Correct Answer: b) Air and noise pollution

Energy

✓✓ 39. **What is the main focus of ISO 50001?**

- a) Water conservation
 - b) Energy management systems
 - c) Sustainable development
 - d) Industrial waste reduction
- Correct Answer:** b) Energy management systems

40. **Which of the following is a renewable energy source?**

- a) Coal
 - b) Solar energy
 - c) Natural gas
 - d) Nuclear energy
- Correct Answer:** b) Solar energy

✓ 41. **What is one major goal of energy management systems?**

- a) Increase fossil fuel consumption
 - b) Improve energy efficiency
 - c) Reduce agricultural productivity
 - d) Promote wasteful energy usage
- Correct Answer:** b) Improve energy efficiency
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Sustainability Standards

✓✓ 42. **What does LEED certification focus on?**

- a) Sustainable building design
 - b) Industrial energy consumption
 - c) Water management in agriculture
 - d) Fossil fuel extraction
- Correct Answer:** a) Sustainable building design

✓✓ 43. **What is the highest LEED certification level?**

- a) Gold
 - b) Platinum
 - c) Silver
 - d) Certified
- Correct Answer:** b) Platinum

44. **Which of these is NOT a category evaluated under LEED?**

- a) Sustainable sites

- b) Water efficiency
 - c) Economic development
 - d) Energy and atmosphere
- Correct Answer:** c) Economic development

45. **What does ISO 14001 emphasize?**

- a) Improving air quality
- b) Establishing environmental management systems
- c) Reducing food waste
- d) Promoting solar energy

Correct Answer: b) Establishing environmental management systems

46. **Which is a goal of the UN Sustainable Development Goals (SDGs)?**

- a) Eliminating renewable energy use
- b) Ending poverty and protecting the environment
- c) Promoting urban sprawl
- d) Reducing global collaboration

Correct Answer: b) Ending poverty and protecting the environment

✓ 47. **How many goals are included in the UN's SDGs?**

- a) 10
- b) 15
- c) 17
- d) 20

Correct Answer: c) 17

48. **Which SDG focuses on climate action?**

- a) Goal 6
- b) Goal 13
- c) Goal 9
- d) Goal 17

Correct Answer: b) Goal 13

Human Activities and Environmental Remediation

✓ 49. **Which farming practice minimizes soil erosion?**

- a) Slash-and-burn agriculture
- b) Mulching and terracing
- c) Overgrazing
- d) Shifting cultivation

Correct Answer: b) Mulching and terracing

50. **What is the best way to reduce the environmental impact of pesticides?**

- a) Increase pesticide application
- b) Use biodegradable and targeted pesticides
- c) Ban all pesticides completely
- d) Rely solely on chemical fertilizers

Correct Answer: b) Use biodegradable and targeted pesticides