

Environmental Science

IInd Year Question Bank

Unit I: ECOSYSTEM AND BIODIVERSITY

Essay Questions:

1. Define Ecosystem. Explain the various biotic and abiotic Components of an Ecosystem.
2. Define Ecological Pyramid. Explain the various types of it with an example.
3. Discuss the Models of Energy Flow in an Ecosystem.
4. Explain the structure and functions of an Ecosystem.
5. Define Biodiversity and explain the various levels of Biodiversity.
6. Write the major factors responsible for loss of plant and animal diversity. Write the steps are needed to prevent them.
7. Explain the Threats and Conservation Methods of biodiversity.
8. Explain the Importance (Value) of Biodiversity.
9. Define Hotspot. Explain the three Indian Hot Spots.
10. What are the major causes of Man-Wildlife conflicts. Discuss the remedial steps that can curb the conflict.

Short Questions:

1. Define Food Web and Food Chain.
2. Explain the different types of Food Chains in an Ecosystem.
3. Explain the Pyramid of Numbers. Draw and explain with an example.
4. Explain the Pyramid of Biomass. Draw and explain with an example.
5. Explain the Pyramid of Energy. Draw and explain with an example.
6. Distinguish between Bio-magnification and Bio-Accumulation.
7. Define
 - a. Producers
 - b. Consumers
 - c. Decomposers
8. Explain the consumptive value of Biodiversity.
9. Explain the Medicinal Value of Biodiversity.
10. Explain the indirect value of Biodiversity.
11. What is Hotspot? List the Indian Hotspots.
12. Write about the “Eastern Himalayas” Biodiversity.
13. Write about the biodiversity present in Western Ghats.
14. Write about the biodiversity present in Indo-Burma Region.
15. Discuss the major threats to biodiversity.
16. Discuss the major causes of Man-Wildlife Conflicts. Discuss its remedial steps.
17. Write a note on In-Situ and Ex-Situ Conservation of Biodiversity. Give examples.

18. Enumerate five important Biosphere Reserves, National Parks (with important wildlife) and Wild Life Sanctuaries (with major wildlife) of Indian. Also mention the state where they are located.
19. What does the following words stands for and where they located?
 - a. NBPGR
 - b. NBAGR and
 - c. NFPTCR
20. Explain how loss of habitat is a threat to biodiversity.
21. Write a note on poaching of wildlife mean. And how is it considered to be a threat to biodiversity.

Unit II: NATURAL RESOURCES

Essay Questions:

1. Enumerate the direct and In-direct benefits from Forest.
2. Explain the Ecological Value and Commercial Value of Forest.
3. Write the various renewable and non- renewable resources. Explain their significance in detail.
4. Explain the Occurrence, Impacts and Preventive measures for Droughts and floods.
5. Write a note on the benefits and Problems in Constructing a Dam.
6. Classify the renewable and non- renewable energy resources and explain them in detail.(Renewable-Solar, Wind, Tidal, Hydropower & Geothermal, Non-renewable – Coal, Petroleum, LPG and Natural Gas)

Short Questions:

1. Define Natural Resources and classify them.
2. Define an Aquifer and mention its types.
3. Write about any two renewable energy resources.
4. Write about any two non-renewable energy resources.
5. Explain the applications of Solar Energy and its uses.
6. Define Biomass energy and explain its various types.
7. Write about Biogas.
8. Write about Coal.
9. Explain the land Degradation process.
10. What is soil erosion and mention about it different types.
11. What is a Landslide? Write its causes and effects.
12. Write a note on LPG and Natural Gas.
13. Write a short note on Petro crops.
14. Explain how Hydrogen can be used as a fuel.
15. Write about Solar Cells/Photovoltaic Cells.
16. Discuss any four renewable energy resources.
17. Discuss any four non-renewable energy resources.
18. Define soil erosion. Mention factors causing soil erosion.
19. Define land slide. Discuss the anthropogenic causes of land slides.

20. Write a note on uses of forests.

UnitIII: ENVIRONMENTAL POLLUTION AND CONTROL TECHNOLOGIES

Essay Questions:

1. Explain the Effects, Causes and Preventive Methods for Air Pollution.
2. Explain the Effects, Causes and Preventive Methods for Water Pollution.
3. Explain the Effects, Causes and Preventive Methods for Soil Pollution.
4. Explain the Effects, Causes and Preventive Methods for Noise Pollution.
5. Explain the impacts of Air pollution on various components.

Short Question:

1. Define Pollution. Classify the pollutants that cause environmental pollution.
2. Write the natural and man-made pollutants that cause air pollution.
3. Differentiate between Primary and secondary air pollutants.
4. Differentiate between Point and Non-Point Water Source.
5. Give an account of the adverse effects of Air Pollution.
6. Enumerate various methods to control air pollution.
7. Enumerate with examples, the major sources of surface and ground water pollution.
8. Discuss the sources of air pollution.
9. Discuss the impacts of air pollution.
10. Discuss the control methods of air pollution.
11. Discuss the sources of water pollution.
12. Discuss the impacts of water pollution.
13. Discuss the control methods of water pollution.
14. Discuss the sources of soil pollution.
15. Discuss the impacts of soil pollution.
16. Discuss the control methods of soil pollution.
17. Discuss the sources of noise pollution.
18. Discuss the impacts of noise pollution.
19. Discuss the control methods of noise pollution.
20. Write a short note on
 - Minamata disease
 - Itai-Itai Disease
 - Bio-magnification
 - Blue Baby Syndrome

UNIT IV: GLOBAL ENVIRONMENTAL ISSUES AND GLOBAL EFFORTS AND EIA

Essay Questions:

1. Discuss the various Anthropogenic Greenhouse Gases in terms of their potential to cause Global Warming.
2. Write a note on climate change and mention the impacts on human environment.
3. Explain the effects of Ozone Depletion and how it can be prevented.
4. What is Global Warming? Explain its causes and its effects on human health and natural resources.
5. Discuss the various EIA Methods.
6. Write a note on the Environmental Management Plan (EMP).

Short Question:

1. Write a note on Global Warming.
2. Write a note on Green House Effect with diagram.
3. Write a note on CO₂ and CFC's for their contribution as Green House Gases.
4. Mention the role of CH₄, N₂O and PFC's in green house effect.
5. Define weather and climate.
6. Write a note on the effects of global warming on sea level rise.
7. Write a note on sea level raise.
8. Discuss the natural formation and occurrence of Ozone in the stratosphere.
9. Explain ozone layer depletion and mention its effects.
10. Write the ozone depleting substances.
11. Write a note Acid Rains.
12. What is Environmental Impact Assessment (EIA) and why should we have EIA for any developmental project?
13. Discuss the various types of Impacts due to development projects with suitable examples.
14. Write a note on green belt development and mention its significance.
15. Write the treatment methods which can be used to reduce the impacts (EMP).
16. List EIA methods.
17. Write a note on Environmental Audit.
18. Write the methods of EMP.
19. Write a note on Green Belt Development.
20. Discuss the purpose of EIA.

UNIT V: ENVIRONMENTAL POLICIES, LEGISLATION AND TOWARDS SUSTAINABLE FUTURE.**Essay Questions:**

1. Write about the functions and powers of Environmental Protection Act – 1986.
2. Write about the functions and powers of Air (Prevention & Control of Pollution) Act – 1981.
3. Write about the functions and powers of Water (Prevention & Control of Pollution) Act – 1974.

4. Write a note on Forest (Conservation) Act 1980.
5. Define Bio-Medical Waste. Discuss the rules to manage and handle them.
6. Define Hazardous Waste. Discuss the rules to manage and handle them and to control their trans-boundary movement.
7. Discuss how e-waste can be managed to prevent environmental pollution.
8. Discuss the Radioactive waste management rules.
9. List and Explain Threats to sustainable development.
10. Explain the concept of Green Building.
11. Explain about the various effects on Environment and Human Health by climate change.
12. Explain about Environmental Education.
13. Explain the role of IT in environment.

Short Question:

1. Define Sustainable Development. Mention the various threats to sustainability.
2. List and discuss the threats to sustainability.
3. Discuss the sustainable goals defined by UN.
4. Write about the over exploitation of resources.
5. Write a note on Population Explosion. Discuss Indian Scenario.
6. Discuss the Crazy Consumerism.
7. Write about the Value-Oriented environmental education.
8. How can one develop smart cities to have a sustainable future?
9. Write a note on Ecological Foot Print.
10. Enumerate how one can have a Low Carbon Lifestyle.
11. Write a note on Life Cycle Assessment.
12. Write a note on the Green Building Ratings.
13. Discuss the advantages of a Green Roof System in Green Building.
14. Write about the material requirements for Green Building.
15. List the Energy considerations for a Green Building.
16. Write about the Water Requirements for a Green Building.
17. Write about the Health considerations for a Green Building.
18. Mention the ratings given for a Green Building.
19. Write a note on e-waste management.
20. Discuss the schedules of Bio-medical waste management and handling rules.