

MES's Pillai College of Education and Research(Autonomous), Chembur
Pedagogy of School Subject - EC3- Environmental Education
Unit Wise Question Bank

Unit 1: Concept of Environment, Eco System and Ecology

a) Environment: Meaning, Components (Biotic and Abiotic),

b) Concept of Eco System & Types of Eco System,

c) Concept of Ecology, Ecological Pyramids (Numbers, Mass, Energy), Food Web. & Ecological Energy Dynamics

Long Answer Questions

1	Explain the meaning and components of the environment.
2	Elaborate on the interaction between biotic and abiotic components in maintaining environmental balance.
3	“Environment is the sum total of biotic and abiotic components.” Justify this with reference to the internal relationship that exists among them.
4	Explain the types of ecosystem.
5	“A disease drastically reduces the population of frogs in a wetland ecosystem”. Explain how this change may affect the food web and ecological balance.
6	Explain the concept of ecology and its importance in understanding environmental relationships.
7	“Excessive use of pesticides reduces insect populations, which in turn affects birds and other animals”. Analyze this situation with reference to ecology, food web, and energy flow.
8	Explain how ecological pyramids and food webs help in understanding ecosystem functioning.
9	“The extinction of a single species affects several other organisms within an ecosystem.” Justify this statement with reference to food webs and ecological relationships.
10	Elucidate ecological pyramids of numbers, biomass, and energy with suitable diagrams and examples.

Short Answer Questions	
1	Meaning of environment
2	Components of Environment
3	Difference between biotic and abiotic components. (Five points each)
4	Concept of Ecosystem
5	Any two types of Ecosystem
6	Concept of Ecology
7	Ecological pyramid of numbers and biomass.(Any five points)
8	Ecological pyramid of energy. (Any five points)
9	Differentiate between food chain and food web (Five points each)
10	Flow of energy through trophic levels. (Any five points)

Unit 2: Major Environmental Issues: Meaning, Causes, Effects and Remedies	
a) Climate Change & Loss of Biodiversity.	
b) Bio magnification and Eutrophication	
c) Genetic Engineering & Urban Sprawl	
Long Answer Questions	
1	Explain any four major environmental issues with suitable remedies for each.
2	Elucidate the causes and effects of climate change.
3	“Deforestation in a region has resulted in the disappearance of several plant and animal species”. Justify this with reference to loss of biodiversity and its effects.
4	"Climate change and biodiversity loss are closely interconnected environmental issues." Justify this statement with suitable examples.
5	Explain the causes and effects Loss of Biodiversity
6	Elucidate the causes and effects of Genetic Engineering.

7	“Genetic engineering can be considered as a boon as well as bane.” Justify the statement with respect to the meaning and effects of genetic engineering.
8	Explain the causes and effects of Eutrophication.
9	"Human activities can disturb aquatic ecosystems even without directly affecting aquatic organisms." Justify this statement with reference to eutrophication and biomagnification.
10	Explain the causes, effects, and remedial measures of Urban sprawl.

Short Answer Questions

1	Any five causes of climate change
2	Any five effects of climate change
3	Concept of biodiversity loss
4	Any five Causes of Loss of Biodiversity
5	Any five Remedial measures for Loss of Biodiversity
6	Any five Causes of Eutrophication
7	Any five remedies for Eutrophication
8	Any five Effects of Eutrophication.
9	Any five remedies for Biomagnification
10	Any five remedies for Urban Sprawl

Unit 3: Development of Environmental Education

a) Historical Developments: Stockholm conference (1972), Intergovernmental conference (1977), Kyoto Protocol (2005), Tbilisi + 30 (2007).

b) Environmental Education: Meaning, Objectives, Principles & Significance

c) Approaches of teaching Environmental Education (Multidisciplinary and Interdisciplinary)

Long Answer Questions

1	Explain the major historical developments that contributed to the growth of
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	Environmental Education
2	"Modern Environmental Education is the result of several international efforts and conferences." Justify this statement with reference to any two major historical developments that contributed to the growth of Environmental Education.
3	"Environmental education is the need of the hour". Justify with reference to its meaning and objectives.
4	Explain the meaning, objectives and principles of Environmental Education.
5	Explain the meaning and significance of Environmental Education.
6	Elucidate the role of Environmental Education in promoting sustainable development and environmental conservation.
7	"Environmental Education is essential for developing environmentally responsible citizens." Justify this statement with suitable examples.
8	Explain the principles of Environmental Education and their educational implications.
9	Explain the multidisciplinary approach and interdisciplinary approach to Environmental Education with suitable examples.
10	"Environmental problems cannot be effectively understood through a single subject alone." Justify this statement with reference to the interdisciplinary approach.
Short Answer Questions	
1	Significance of the Stockholm Conference (1972) in the development of Environmental Education.
2	Objectives of the Kyoto Protocol (2005).
3	Contribution of international conferences to Environmental Education.
4	Meaning of Environmental Education.
5	Any five principles of Environmental Education.
6	Objectives of Environmental Education.
7	Approaches of teaching Environmental Education

8	Any five Advantages of multidisciplinary approach
9	Any five Advantages of interdisciplinary approach
10	Differentiate between multidisciplinary and interdisciplinary approaches. (Five points each)

Unit 4: Initiatives for Environment Assessment	
a) Environmental Impact Assessment: (Meaning, Steps & Significance)	
b) Environmental Management and Protection Need for environmental management – function and characteristics of environmental management	
c) Environmental Audit: (Definition; Features and types of environmental auditing)	
Long Answer Questions	
1	Explain the meaning and significance of environmental impact assessment.
2	Elaborate the meaning and steps of environmental impact assessment.
3	"Development projects should not be implemented without assessing their environmental consequences." Justify this statement with reference to Environmental Impact Assessment.
4	Explain the characteristics of environment management.
5	"Environmental management is essential for balancing economic development and environmental conservation." Justify this statement with suitable examples.
6	"A school adopts rainwater harvesting, solar energy, and waste management practices as part of its Green Campus initiative". Explain this with reference to the functions of environmental management.
7	Explain the meaning and need for environmental management and protection.
8	"Environmental auditing is an important tool for environmental protection and sustainable development." Justify this statement with suitable examples.
9	Elaborate on features of Environmental Auditing

10	Explain the types of environmental auditing.
Short Answer Questions	
1	Meaning of Environmental Impact Assessment
2	Objectives of Environmental Impact Assessment
3	Steps involved in Environmental Impact Assessment.
4	Any five advantages of Environmental Impact Assessment.
5	Significance of EIA in environmental protection.
6	Any five functions of environmental management.
7	Any five characteristics of environmental management.
8	Meaning of Environmental Audit.
9	Any five features of Environmental Audit.
10	Any two types of Environmental Audit.

Unit 5: Sustainable Environmental Management	
a) Sustainable Development: Meaning, Need, Guiding Principles.	
b) Sustainable Environmental Practices: Rain water Harvesting, Mangrove Management, Solid Waste Management (Meaning, Process and Significance of each)	
c) Indigenous Technical Knowledge as a sustainable Practice	
Long Answer Questions	
1	Explain the meaning and need of Sustainable Development.
2	Explain Guiding Principles of Sustainable Development.
3	“Sustainable development is necessary to conserve and preserve the environment for future generations”. Justify this with reference to meaning and the need for sustainable

	development.
4	Explain the meaning, need and guiding principles of sustainable development.
5	"Rainwater harvesting is an effective solution for water conservation." Justify this statement with suitable examples.
6	"Mangroves play a crucial role in maintaining ecological balance in coastal regions." Justify this statement with suitable examples.
7	Explain the process of solid waste management.
8	Explain any one Sustainable Environmental practices with reference to the process and significance
9	Explain Indigenous Technical Knowledge as a Sustainable Practice with suitable examples.
10	"Farmers continue to use traditional water conservation techniques that have been practiced for generations". Explain this with reference to Indigenous Technical Knowledge.
Short Answer Questions	
1	Need for sustainable development.(Any five points)
2	Any five guiding principles of sustainable development.
3	Process of Rainwater harvesting
4	Process of Solid Waste Management.
5	Significance of any two Sustainable practices.(Any five points)
6	Significance of Rainwater Harvesting(Any five points)
7	Significance of Mangrove Management (Any five points)
8	Significance of Solid Waste Management (Any five points)
9	Indigenous Technical Knowledge as a sustainable practice.
10	Any two traditional practices used for environmental conservation.

Unit 6: Environmental Initiatives, Projects and Laws**a) Movements: Tarun Bharat Sangh , Narmada Bachao Andolan,****b) Projects: Tiger Project, Ganga Action Plan,****c) Laws of Conservation & Protection: Wild-life Protection Act-1972, Environment Protection Act, 1986 and Noise Pollution Act-2000.****Long Answer Questions**

1	Explain salient features of Narmada Bachao Andolan
2	Explain the salient features of the Wildlife Protection Act, 1972.
3	Elucidate the need, objectives, and outcomes of the Ganga Action Plan.
4	"Conservation of Tigers as predators is essential for maintaining ecological balance." Justify this statement with reference to Project Tiger.
5	Explain the provisions and significance of the Noise Pollution Act, 2000.
6	Elucidate the salient features of Tarun Bharat Sangh
7	"Despite many shortfalls, Project Tiger is one of the most successful Wild Life conservation initiatives by the government." Justify with reference to the features of the project.
8	Elaborate on the salient features of the Environment Protection Act, 1986.
9	"Tarun Bharat Sangh promotes the community driven decentralized management of the natural resources." Justify with reference to objectives and salient features of Tarun Bharat Sangh.
10	"Environmental protection requires a strong legal framework." Justify this statement with reference to the Environment Protection Act, 1986.

Short Answer Questions

1	Significance of the Narmada Bachao Andolan. (Any five points)
2	Objectives of the Ganga Action Plan (Any five points)
3	Need for noise pollution Act, 2000
4	Salient features of Tiger Project (Any five points)
5	Objectives of Tiger Project

6	Salient features of the Environment Protection Act, 1986 (Any five)
7	Any five objectives of the Tarun Bharat Sangh Movement.
8	Salient Features of Wild-lifeProtection Act-1972
9	Salient features of any two environmental initiatives (Five points each)
10	Salient features of any two environmental laws. (Five points each)