



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

## MECHANICAL ENGINEERING

### TUTORIAL QUESTION BANK

<b>Course Title</b>	ENVIRONMENTAL SCIENCE				
<b>Course Code</b>	AHSB07				
<b>Programme</b>	B.Tech				
<b>Semester</b>	IV	CSE   IT   ECE   CE   ME   AE   EEE			
<b>Course Type</b>	Foundation				
<b>Regulation</b>	IARE - R18				
<b>Course Structure</b>	<b>Theory</b>			<b>Practical</b>	
	<b>Lectures</b>	<b>Tutorials</b>	<b>Credits</b>	<b>Laboratory</b>	<b>Credits</b>
	0	0	0	0	0
<b>Chief Coordinator</b>	Ms. M Malathi, Assistant Professor				
<b>Course Faculty</b>	Dr. V Anita Rani, Professor Dr. Venkateshwar Rao, Professor Mr. M Praveen, Assistant Professor Mr. B Raju, Assistant Professor Ms. M Malathi, Assistant Professor Ms. T Mallika, Assistant Professor Mr. G Mahesh Kumar, Assistant Professor				

### COURSE OBJECTIVES:

The course should enable the students to:	
I	Analyze the interrelationship between living organism and environment.
II	Understand the importance of environment by assessing its impact on the human world.
III	Enrich the knowledge on themes of biodiversity, natural resources, pollution control and waste management.

**COURSE OUTCOMES (COs):**

CO 1	Discover knowledge in ecological perspective and value of environment.
CO 2	Understand the significance of various natural resources and its management.
CO 3	Demonstrate a comprehensive understanding of the world's biodiversity and the importance of its conservation.
CO 4	Categorize different types of pollutions and their control measures, Analyze global environmental problems and come out with best possible solutions.
CO 5	Discover effective methods of waste management, Understand environmental laws and sustainable development.

**COURSE LEARNING OUTCOMES (CLOs):**

AHSB07.01	Summarize about environment and its importance and Discuss environment and importance of ecosystems.
AHSB07.02	Provides the information regarding ecosystem and applicability. Acquire knowledge of how all the animals are competing with their food requirements and also understand the various trophic levels in the food chain.
AHSB07.03	Describe the flow of energy through the various components of ecosystem. Examine the importance a of nutrients and flow of nutrients in ecosystem
AHSB07.04	Summarize about the toxicity of heavy metals on the biotic and a biotic components.
AHSB07.05	Distinguish about different types of natural resources and their applicability and illustrate the utility of renewable resources efficiency.
AHSB07.06	Describe the impact of over utilization of underground and surface water. Discuss the disaster manage mental plans.
AHSB07.07	Describe the benefits and property of dams. Illustrate the uses of mineral resources.
AHSB07.08	Enumerate the applications of the solar energy and wind energy in modern days.
AHSB07.09	Illustrate the definition and importance of biodiversity. Acquire the genetic diversity, species and ecosystem diversity.
AHSB07.10	Describe the ecological values and consumptive use of ecosystem. Recall India is mega diversity nation. Discuss the hot spot center in and around.
AHSB07.11	Analyze the information regarding different causes for loss of biodiversity. Analyze various reasons for conflict of species. Illustrate different methods to protect the biodiversity. Correlate national biodiversity act.
AHSB07.12	Explain the meaning of environmental pollution and classification. Analyze the important pollutants in air pollutants.
AHSB07.13	Enumerate the sources types and effects of water pollution. Correlate the sources types and effects of soil pollution. Analyze the noise quality and permissible levels
AHSB07.14	Describe the various methods commonly employed for the disposal of solid waste.
AHSB07.15	Identify To understand the recent trends in e- waste management practices.
AHSB07.16	Understand concept of climate change and impacts.
AHSB07.17	Summarize the remedial measures of ozone depletion.
AHSB07.18	Evolve strategies to environmental issues. Describe the role of government and legal aspects in environmental protection
AHSB07.19	Discuss the silent features of the hazardous waste management rules. Understand the importance of EIA for developmental activities
AHSB07.20	State the aim and objectives of sustainable development. Enumerate population and its explosion.
AHSB07.21	State the aim and objectives of sustainable development. Acquire knowledge of environmental education. Summarize the environmental ethics and objectives of green buildings

## TUTORIAL QUESTION BANK

MODULE- I				
ENVIRONMENT AND ECOSYSTEMS				
Part - A (Short Answer Questions)				
S No	QUESTIONS	Blooms Taxonomy Level	Course Outcomes	Course Learning Outcomes (CLOs)
1	Define ecosystem. How does an ecosystem work?	Understand	CO 1	AHSBO7.02
2	What are biotic and abiotic factors?	Remember	CO 1	AHSBO7.02
3	Explain briefly the importance of ecological pyramids.	Understand	CO 1	AHSBO7.02
4	What are producers, consumers and decomposers in an ecosystem?	Remember	CO 1	AHSBO7.02
5	Discuss pyramid of biomass.	Understand	CO 1	AHSBO7.02
6	What is meant by biomagnification?	Remember	CO 1	AHSBO7.03
7	Explain the energy flow of an ecosystem.	Understand	CO 1	AHSBO7.02
8	Discuss pyramid of energy.	Understand	CO 1	AHSBO7.02
9	What is the nature of an ecosystem? Give its structure and functions.	Remember	CO 1	AHSBO7.02
10	Differentiate between food chain and food web.	Understand	CO 1	AHSBO7.02
11	Discuss pyramid of number.	Understand	CO 1	AHSBO7.02
12	What is the structure of an ecosystem?	Remember	CO 1	AHSBO7.04
13	Relate ecosystem and biosphere?	Understand	CO 1	AHSBO7.02
14	What are the processes that autotrophic organisms use to produce organic material from inorganic substances?	Remember	CO 1	AHSBO7.02
15	Classify ecosystems based on their habitat, creation and exchange of matter and energy.	Remember	CO 1	AHSBO7.02
16	List the different tropic levels of ecosystem.	Understand	CO 1	AHSBO7.02
17	What kind of organisms do we find in aquatic life zones?	Remember	CO 1	AHSBO7.02
18	Define biogeochemical cycles. Explain their importance.	Remember	CO 1	AHSBO7.04
19	What are terrestrial and aquatic ecosystems?	Remember	CO 1	AHSBO7.02
20	Define autotrophic and heterotrophic organisms.	Remember	CO 1	AHSBO7.04
Part - B (Long Answer Questions)				
1	Explain energy flow pattern in different types of ecosystem. What happens to the energy flow as we move up the trophic levels?	Understand	CO 1	AHSBO7.02
2	List the main components of ecosystem and briefly describe the functions of each.	Understand	CO 1	AHSBO7.02
3	Explain about carbon and nitrogen cycles with the help of a diagram.	Understand	CO 1	AHSBO7.02
4	Discuss the significance of food chains and food webs with relevant examples.	Understand	CO 1	AHSBO7.02
5	What are biogeochemical cycles? Explain phosphorous cycle with the help of a diagram.	Understand	CO 1	AHSBO7.02
6	Name all the cycles that constitute the proper functioning of an ecosystem.	Understand	CO 1	AHSBO7.03
7	Explain about the biomagnification property of a food chain.	Understand	CO 1	AHSBO7.02
8	What are ecological pyramids? Explain why some of these pyramids are upright while others are inverted in different ecosystem.	Understand	CO 1	AHSBO7.02
9	Differentiate between grazing food chain and detritus food chain.	Understand	CO 1	AHSBO7.02
10	List the different tropic levels of ecosystem?	Understand	CO 1	AHSBO7.02
11	Explain the role of producers, consumers and decomposers in an ecosystem with practical example.	Understand	CO 1	AHSBO7.02
12	What services do ecosystems provide us?	Understand	CO 1	AHSBO7.04
13	Differentiate among species, population and community.	Understand	CO 1	AHSBO7.02
14	List the different tropic levels of ecosystem?	Understand	CO 1	AHSBO7.02
15	What is the role of an individual to conserve the environment?	Understand	CO 1	AHSBO7.02

16	Write a short note on 1. Single channel energy model 2. Y shaped energy model	Understand	CO 1	AHSB07.02
17	Explain about hydrological cycle with the help of a diagram.	Understand	CO 1	AHSB07.02
18	Define Eco system? Explain the scope and importance of ecosystem?	Understand	CO 1	AHSB07.01
19	Discuss the 'need for public awareness on environment'.			
20	Explain the major drawbacks of using pesticides and other chemicals in the water ecosystem.	Understand	CO 1	AHSB07.03

**Part - C (Problem Solving and Critical Thinking Questions)**

1	Explain energy flow pattern in different types of ecosystem. What happens to the energy flow as we move up the tropical levels?	Understand	CO 1	AHSB07.02
2	Explain the major drawbacks of using pesticides and other agrochemicals in the soil on any ecosystem.	Understand	CO 1	AHSB07.03
3	Why ecosystem is getting degraded and what are the steps have to be taken by public?	Understand	CO 1	AHSB07.01
4	If every organism must eat another organism for survival, where does the food chain start? Recall.	Understand	CO 1	AHSB07.02
5	What is the role of an individual to conserve the environment?	Understand	CO 1	AHSB07.01
6	Mention type of cycles we have in an ecosystem. Explain how water circulates on earth.	Understand	CO 1	AHSB07.04
7	What is the scope and importance of environment?	Understand	CO 1	AHSB07.01
8	Explain why there are only 4 to 5 tropic levels in any ecosystem.	Understand	CO 1	AHSB07.02
9	Write a short note on the need for public awareness on environment in today's scenario.	Understand	CO 1	AHSB07.01
10	Explain how food becomes energy in organisms.	Understand	CO 1	AHSB07.02

**NATURAL RESOURCES**

**Part – A (Short Answer Questions)**

1	What are renewable and non-renewable resources? Give examples.	Remember	CO 2	AHSB07.05
2	Enlist different surface and ground water resources.	Remember	CO 2	AHSB07.05
3	What are the environmental and social impacts of mining?	Remember	CO 2	AHSB07.06
4	What is an aquifer? Discuss its types.	Remember	CO 2	AHSB07.06
5	List the environmental effects of using of mineral resources.	Understand	CO 2	AHSB07.05
6	Define mineral. Write its uses.	Remember	CO 2	AHSB07.05
7	What is the importance of rain water harvesting?	Understand	CO 2	AHSB07.05
8	What are the benefits and problems provided by large dams?	Understand	CO 2	AHSB07.06
9	Define solar cells. Write its applications.	Understand	CO 2	AHSB07.07
10	What is the impact of deforestation on the environment?	Understand	CO 2	AHSB07.06
11	State any two reasons that why should we conserve natural resources.	Understand	CO 2	AHSB07.05
12	What is the importance of land as a natural resource?	Understand	CO 2	AHSB07.05
13	List the different types of natural resources.	Remember	CO 2	AHSB07.05
14	What are the uses of various types of minerals?	Understand	CO 2	AHSB07.05
15	Discuss the problems of over exploitation of ground water.	Understand	CO 2	AHSB07.07
16	What exactly are fossil fuels and why are they non-renewable?	Understand	CO 2	AHSB07.05
17	Define soil erosion. How can it be checked?	Remember	CO 2	AHSB07.06

18	What is meant by exhaustible natural resources? Mention any two alternate energy resources and give their uses.	Remember	CO 2	AHSB07.07
19	Describe the measures to be taken for the control of floods?	Understand	CO 2	AHSB07.06
20	What are the main reasons for water scarcity in India?	Understand	CO 2	AHSB07.06
<b>Part - B (Long Answer Questions)</b>				
1	Classify natural resources. What are the different methods of conserving water resource?	Understand	CO 2	AHSB07.05
2	Explain how water becomes a renewable resource. What are the effects of over exploitation of water resources?	Understand	CO 2	AHSB07.05
3	Discuss briefly droughts and floods with respect to their occurrence and impacts.	Understand	CO 2	AHSB07.06
4	What are the advantages and disadvantages of dams to the society and environment?	Understand	CO 2	AHSB07.06
5	Discuss in detail the major environmental and social impacts of mineral extraction.	Understand	CO 2	AHSB07.05
6	Explain how serious are water logging and soil salinity in land degradation?	Understand	CO 2	AHSB07.05
7	List out alternate energy sources. Explain their present status, merits and demerits.	Understand	CO 2	AHSB07.05
8	What is a wind farm? Enumerate advantages and disadvantages associated with wind power.	Understand	CO 2	AHSB07.06
9	Compare the advantages and disadvantages of oil, coal and natural gas as energy sources.	Understand	CO 2	AHSB07.07
10	What are the advantages of hydropower? How energy is generated in hydroelectric power plant.	Understand	CO 2	AHSB07.06
11	Explain the cause of over exploitation of natural resources. Why do we need to manage our resources?	Understand	CO 2	AHSB07.05
12	What are the major anthropogenic causes of droughts and floods? Give its remedial measures.	Understand	CO 2	AHSB07.05
13	Explain how solar energy converted to electrical power and what are the problems in this regard?	Understand	CO 2	AHSB07.05
14	What is the impact of urbanization and industrialization on land?	Understand	CO 2	AHSB07.05
15	Write a note on non-renewable energy resources. Explain how almost every source of energy has its limits.	Understand	CO 2	AHSB07.07
16	Explain breezily about geo thermal energy and give its advantages and disadvantages?	Understand	CO 2	AHSB07.05
17	What are renewable and non renewable energy sources and give the advantages of renewable energy sources?	Understand	CO 2	AHSB07.07
18	What are the advantages of solar energy? Explain the role of solar energy in replacing natural energy sources.	Understand	CO 2	AHSB07.05
19	What are dams? Discuss the advantages and disadvantages of dams?	Understand	CO 2	AHSB07.07
20	Explain briefly about rain harvesting plant and give its importance in urban society?	Understand	CO 2	AHSB07.07
<b>Part - C (Problem Solving and Critical Thinking Questions)</b>				
1	Discuss the importance of land as a natural resource. Explain how world's land surface is getting degraded.	Understand	CO 2	AHSB07.05
2	Explain how every source of energy has its limits. What should be our attitude to using energy in this world?	Understand	CO 2	AHSB07.09
3	What changes would you incorporate in your life-style in a move towards a sustainable use of our resources?	Understand	CO 2	AHSB07.05
4	What you can do to conserve water? Explain how rain water can be harvested.	Understand	CO 2	AHSB07.05
5	Water is a unique resource. Comment on this statement.	Understand	CO 2	AHSB07.05
6	What are the environmental and social impacts of mining?	Understand	CO 2	AHSB07.06
7	What are the major anthropogenic causes of droughts and floods? Give its remedial measures.	Understand	CO 2	AHSB07.06
8	What is wind energy? Enumerate advantages and disadvantages associated with wind power.	Understand	CO 2	AHSB07.05
9	Discuss some of the water resources problems in India.	Understand	CO 2	AHSB07.05

10	What kind of energy do we get from the sun? Explain how we convert solar energy in to electricity.	Understand	CO 2	AHSB07.07
<b>MODULE - III</b>				
<b>BIODIVERSITY AND BIOTIC RESOURCES</b>				
<b>Part - A (Short Answer Questions)</b>				
1	Define biodiversity. How biodiversity is measured?	Remember	CO 3	AHSB07.10
2	What are the uses of biodiversity?	Remember	CO 3	AHSB07.10
3	Define biodiversity hotspot. Where are biodiversity hotspots located?	Remember	CO 3	AHSB07.11
4	What are the main causes of loss of biological diversity nowadays?	Understand	CO 3	AHSB07.12
5	Summarize India as a mega diversity nation.	Remember	CO 3	AHSB07.11
6	Differentiate between genetic and species diversity.	Understand	CO 3	AHSB07.10
7	List the indirect values of biodiversity.	Remember	CO 3	AHSB07.10
8	What is the value of biodiversity?	Remember	CO 3	AHSB07.10
9	Define the term genetic banks.	Remember	CO 3	AHSB07.12
10	What is habitat fragmentation?	Remember	CO 3	AHSB07.12
11	Describe how can human activities have an effect on biodiversity.	Understand	CO 3	AHSB07.12
12	Define national park. Name few such parks in India.	Remember	CO 3	AHSB07.12
13	Outline in situ and ex situ conservation of biodiversity.	Remember	CO 3	AHSB07.12
14	What does NBPGR AND NBAGR stand for?	Remember	CO 3	AHSB07.12
15	List the national wildlife sanctuaries.	Remember	CO 3	AHSB07.12
16	List the major causes of man-wild life conflict.	Understand	CO 3	AHSB07.12
17	Enumerate major threats to biodiversity.	Understand	CO 3	AHSB07.12
18	Discuss how poaching affects the environment.	Understand	CO 3	AHSB07.12
19	Why habitat loss is a threat to biodiversity?	Understand	CO 3	AHSB07.12
20	What is a biosphere reserve? List few biosphere reserves in India.	Remember	CO 3	AHSB07.12
<b>Part – B (Long Answer Questions)</b>				
1	Define biodiversity. Explain genetic diversity, species diversity and ecosystem diversity.	Understand	CO 3	AHSB07.10
2	Summarize consumptive use value, productive use value, social value, ethical value, aesthetic value and optional value of biodiversity.	Understand	CO 3	AHSB07.10
3	Explain how the study of biodiversity is beneficial to human life?	Understand	CO 3	AHSB07.11
4	Our India is a “mega diversity nation” Support the statement highlighting the biodiversity greatness of India.	Understand	CO 3	AHSB07.12
5	Explain hot spots of biodiversity and mention three hot spots found in India. Discuss their salient features.	Understand	CO 3	AHSB07.11
6	What is the link between biodiversity and ecosystem services?	Understand	CO 3	AHSB07.10
7	What is the flora and fauna found in Indo-Burma, Western Ghats and Eastern Himalayas regions of India?	Understand	CO 3	AHSB07.10
8	What is meant by biodiversity conservation? Explain the role of zoos and botanical gardens in biodiversity conservation.	Understand	CO 3	AHSB07.10
9	Enumerate five important biosphere reserves, national parks and wildlife sanctuaries of India. Also mention the state where they are located.	Understand	CO 3	AHSB07.12
10	What are the major causes of human-wild life conflicts? Suggest suitable wild life conservation practices.	Understand	CO 3	AHSB07.12
11	Explain in-situ and ex-situ conservation of biodiversity with examples.	Understand	CO 3	AHSB07.12
12	Explain major threats to biodiversity.	Understand	CO 3	AHSB07.12
13	What is the role of biotechnology with reference to biodiversity conservation?	Understand	CO 3	AHSB07.12
14	What factors lead to biodiversity loss? Explain the human impact on biological diversity.	Understand	CO 3	AHSB07.12
15	Describe actions can be taken to conserve biodiversity. How do protected areas benefit biodiversity and human?	Understand	CO 3	AHSB07.12
16	What is the flora and fauna found in Western Ghats and Eastern Himalayas regions of India?	Understand	CO 3	AHSB07.10
17	List the any three of wild life conservation sites in india and explain the role of conservation on wild life?	Understand	CO 3	AHSB07.10

18	Explain briefly about role of human being in conservation of biodiversity?	Understand	CO 3	AHSB07.10
19	List out and explain the major hot spot regions in india?	Remember	CO 3	AHSB07.11
20	Discuss the any three major man-wild life conflicts happened in india?	Understand	CO 3	AHSB07.10

**Part – C (Problem Solving and Critical Thinking)**

1	What are the three categories in to which biodiversity can be separated?	Understand	CO 3	AHSB07.10
2	List different developmental activities, including construction of dams, affect the biodiversity and action need to be taken to conserve them.	Understand	CO 3	AHSB07.12
3	Why is biodiversity valuable and how can be the value of biodiversity estimated?	Understand	CO 3	AHSB07.10
4	India is one of the world's richest countries in terms of its vast array of biological diversity. Support the statement with three facts.	Understand	CO 3	AHSB07.11
5	What are the basic issues in protecting wild flora and fauna?	Understand	CO 3	AHSB07.12

6	Describe the measures taken by India to save our biodiversity.	Understand	CO 3	AHSB07.12
7	Explain how ex-situ conservation is practised. Write its advantages and disadvantages.	Understand	CO 3	AHSB07.12
8	Describe how effective are different types of protected areas at conserving biodiversity and providing ecosystem services.	Understand	CO 3	AHSB07.12
9	a) Name the types of plants for which gene sanctuaries in India exist. b)Name the animals for whose protection and conservation specific projects have been launched in our country.	Understand	CO 3	AHSB07.12
10	Explain how in-situ conservation is practised. Write its advantages and disadvantages.	Understand	CO 3	AHSB07.12

**MODULE -IV**

**ENVIRONMENTAL POLLUTION, POLLUTION CONTROL TECHNOLOGIES AND GLOBAL ENVIRONMENTAL PROBLEMS**

**Part – A (Short Answer Questions)**

1	Define pollution. Name various atmospheric pollutants.	Remember	CO 4	AHSB07.13
2	What is noise pollution? Mention its sources.	Remember	CO 4	AHSB07.13
3	What are the natural and man-made pollutants that cause air pollution?	Remember	CO 4	AHSB07.13
4	Mention various methods to control air pollution in industries.	Understand	CO 4	AHSB07.13
5	Discuss soil pollution caused by fertilizers.	Remember	CO 4	AHSB07.13
6	Discuss the adverse health effects due to industrial noise.	Understand	CO 4	AHSB07.14
7	Explain how ground water get pollutes.	Understand	CO 4	AHSB07.13
8	Define air pollution. What are the sources of air pollution?	Remember	CO 4	AHSB07.13
9	Define solid waste. How can solid waste be recycled?	Understand	CO 4	AHSB07.19
10	Describe how we measure water quality.	Understand	CO 4	AHSB07.14
11	Mention treatment methods used for industrial effluents.	Remember	CO 4	AHSB07.19
12	Define e-waste. Why does it require management?	Understand	CO 4	AHSB07.19
13	What is bioremediation?	Remember	CO 4	AHSB07.19
14	What is ozone layer and why is it getting depleted?	Understand	CO 4	AHSB07.16
15	What are the major causes of deforestation?	Understand	CO 4	AHSB07.13
16	Outline the provisions of the Kyoto protocol.	Remember	CO 4	AHSB07.17
17	What are ozone depleting substances?	Remember	CO 4	AHSB07.16
18	What are the major causes of desertification?	Understand	CO 4	AHSB07.16
19	Differentiate between climate change and global warming.	Understand	CO 4	AHSB07.16
20	What are the results of implementation of the Montreal protocol?	Remember	CO 4	AHSB07.17

**Part – B (Long Answer Questions)**

1	What are primary and secondary air pollutants? Enumerate various methods to control air pollution.	Understand	CO 4	AHSB07.13
2	Enumerate with examples the major sources of surface water pollution and ground water pollution. Explain the methods to control water pollution.	Understand	CO 4	AHSB07.13
3	Describe the major sources of soil pollution. How does soil pollution affect soil productivity and what measures can be taken to prevent soil pollution?	Understand	CO 4	AHSB07.13
4	Describe briefly the sources, effects and control of noise pollution.	Understand	CO 4	AHSB07.13
5	Enumerate any five major categories of water pollutants, their sources and effects.	Understand	CO 4	AHSB07.13
6	Discuss how e-waste can be managed to prevent environmental pollution.	Understand	CO 4	AHSB07.14

7	Describe the various ways of treating and purifying sewage water.	Understand	CO 4	AHSB07.13
8	What adverse effects can solid wastes cause? Discuss how can the solid waste be managed.	Understand	CO 4	AHSB07.13
9	Explain the concept of bioremediation. What are the advantages of bioremediation?	Understand	CO 4	AHSB07.19
10	Discuss Kyoto protocol. What can it do to curb climate change?	Understand	CO 4	AHSB07.14
11	What are the major causes and consequences of deforestation?	Understand	CO 4	AHSB07.19
12	Discuss the difference of opinion between north block and south block countries during earth summit, 1992.	Understand	CO 4	AHSB07.19
13	Explain climate change and global warming. How are they related and what is the evidence that proves climate is changing?	Understand	CO 4	AHSB07.19
14	What are greenhouse gases? Discuss the potential and contribution of these gases to global warming phenomenon.	Understand	CO 4	AHSB07.16
15	What are ozone depleting substances? Discuss the theme of Montreal protocol.	Understand	CO 4	AHSB07.13
16	Describe briefly waste water treatment methods?	Understand	CO 4	AHSB07.13
17	Discuss Montreal protocol. What can it do to curb climate change?	Understand	CO 4	AHSB07.14
18	Enumerate with examples the sources of surface water?	Understand	CO 4	AHSB07.13
19	What are the major causes and consequences of desertification?	Understand	CO 4	AHSB07.19
20	Explain the consequences of surface and ground water?	Understand	CO 4	AHSB07.13

**Part – C (Problem Solving and Critical Thinking)**

1	List the physical, physiological and psychological effects of noise. Discuss the adverse health effects due to industrial noise.	Understand	CO 4	AHSB07.13
2.	Explain climate change and global warming. How are they related and what is the evidence that proves climate is changing?	Understand	CO 4	AHSB07.16
3	What is the role of automobiles in creating air pollution and other environmental problems?	Understand	CO 4	AHSB07.13
4	Enumerate any five major categories of water pollutants, their sources and effects.	Understand	CO 4	AHSB07.13
5	Explain how groundwater in many places in India become contaminates with fluoride and arsenic.	Understand	CO 4	AHSB07.13
6	Draw layouts of Sewage treatment, effluent treatment and common effluent treatment plants.	Understand	CO 4	AHSB07.19
7	Explain the problems encountered in the disposal of solid waste from various sources.	Understand	CO 4	AHSB07.19
8	How can a change of one or two degrees in global average temperatures have an impact on our lives?	Understand	CO 4	AHSB07.16
9	What are the international initiatives against the depletion of the ozone layer?	Understand	CO 4	AHSB07.16
10	Explain how does climate change become a global issue and what were the international initiatives.	Understand	CO 4	AHSB07.16

**MODULE -V**

**ENVIRONMENTAL LEGISLATIONS AND SUSTAINABLE DEVELOPMENT**

**Part - A (Short Answer Questions)**

1	List out the objectives of Air pollution act.	Understand	CO 5	AHSB07.18
2	What are the objectives of wild life protection act?	Remember	CO 5	AHSB07.18
3	Enlist various acts related to environment protection.	Remember	CO 5	AHSB07.18
4	What is the role of green buildings in reducing global warming?	Understand	CO 5	AHSB07.21
5	Write a note on bio-medical wastes.	Remember	CO 5	AHSB07.19
6	What is meant by environmental impact assessment?	Remember	CO 5	AHSB07.20
7	What is meant by crazy consumerism?	Remember	CO 5	AHSB07.21
8	Enumerate the various effects of urban sprawl.	Understand	CO 5	AHSB07.21
9	What is the importance of environmental education?	Understand	CO 5	AHSB07.21
10	List any three categories of waste and give their sources.	Remember	CO 5	AHSB07.19
11	What does the forest conservation act of 1980 specify?	Remember	CO 5	AHSB07.18
12	Define hazardous waste. Are hazardous wastes dumped in India?	Remember	CO 5	AHSB07.19



13	Mention some salient features of biomedical waste management and handling rules, 2016.	Remember	CO 5	AHSB07.18
14	What is municipal solid waste and why does it require management?	Understand	CO 5	AHSB07.19
15	Define sustainable development. Why is it necessary?	Understand	CO 5	AHSB07.21
16	What is meant by population explosion?	Remember	CO 5	AHSB07.21
17	Discuss the basic characteristics of green buildings.	Remember	CO 5	AHSB07.21
18	What are some threats to sustainability?	Understand	CO 5	AHSB07.21
19	What are the duties and powers assigned to State Pollution Control Board under water act?	Remember	CO 5	AHSB07.18
20	Mention the objectives of environmental protection act.	Remember	CO 5	AHSB07.18
<b>Part - B (Long Answer Questions)</b>				
1	Discuss the salient features of Air (Prevention and Control of Pollution) Act, 1981.	Understand	CO 5	AHSB07.18
2	What are the strategies for making cities and communities sustainable?	Understand	CO 5	AHSB07.18
3	Discuss the salient features of Environmental protection Act, 1986.	Remember	CO 5	AHSB07.18
4	List major provisions in Forest Conservation Act, 1980.	Understand	CO 5	AHSB07.21
5	Discuss the salient features of Wild life protection Act.	Understand	CO 5	AHSB07.19
6	What are the major municipal solid waste management and handling rules?	Understand	CO 5	AHSB07.20
7	Define biomedical wastes. What are the rules to manage and handle them?	Understand	CO 5	AHSB07.21
8	What are hazardous wastes? Discuss the rules to manage and handle them.	Understand	CO 5	AHSB07.21
9	Define sustainable development. What are the threats and measures for sustainable development?	Understand	CO 5	AHSB07.21
10	Describe the importance of environmental education. What is value-based environmental education?	Remember	CO 5	AHSB07.19
11	Write the objectives, principles, key elements and importance of environmental impact assessment.	Understand	CO 5	AHSB07.18
12	Discuss the major components of population growth. What are the advantages of having a healthy population?	Understand	CO 5	AHSB07.19
13	Explain how can extreme consumerism among a society's wealthiest members affect middle-class people?	Understand	CO 5	AHSB07.18
14	What is urban sprawl? Mention causes and effects of urban sprawl.	Understand	CO 5	AHSB07.19
15	Explain the concept of green building. How will green building impact the environment overall.	Understand	CO 5	AHSB07.21
16	Discuss the salient features of Water Act.	Understand	CO 5	AHSB07.18
17	Write the objectives, principles, key elements and importance of environmental education.	Remember	CO 5	AHSB07.19
18	Discuss the role of government towards the sustainable development?	Understand	CO 5	AHSB07.21
19	What is population explosion? Write the consequences and controlling methods of population explosion.	Understand	CO 6	AHSB07.20
20	Explain briefly the concept of crazy consumption and its effects ?	Understand	CO 7	AHSB07.21
<b>Part – C (Problem Solving and Critical Thinking)</b>				
1	Why do we refer environment protection act 1986 as an umbrella act? Discuss the role of various governmental agencies in environmental protection and control.	Understand	CO 5	AHSB07.18
2	How do you define the pollution as per water act, 1974? Write the salient feature of this act.	Remember	CO 5	AHSB07.18
3	Explain the concept of green building. How will green building impact the environment overall.	Understand	CO 5	AHSB07.21
4	What are the rules and regulations that guide waste management in India?	Understand	CO 5	AHSB07.18
5	Why is sustainable development so often associated with protecting the environment?	Understand	CO 5	AHSB07.18
6	Explain how does wild life protection act, 1972 deal with human-animal conflict? Mention the major threats being faced by the wild life in India.	Understand	CO 5	AHSB07.18
7	What is meant by a basic environmental assessment? Describe the key steps of this process.	Understand	CO 5	AHSB07.20
8	Why are developing countries experiencing rapid population growth while developed countries are growing more slowly?	Understand	CO 5	AHSB07.21
9	What are the functions of central board and state board under the air act?	Understand	CO 5	AHSB07.18

10	“Environmental education can play an important role in environmental protection”. Explain it.	Understand	CO 5	AHSB07.21
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**Prepared by:**

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