

Q. What is Global warming? Explain the effects of global warming.

Ans. Global warming :- The process of Increase in the temperature of Earth's surface due to increase of  $\text{CO}_2$  in atmosphere.

## Effects of Global warming

- 1) Desertification (making of Deserts) → Due to global warming, the atmosphere temp. increases & so water cycle imbalances, that's why rainfall is less & so the plants are less which results in making of deserts.
2. Rise in sea level :-  
Due to melting of ice & glaciers water level rises in sea & rivers, that can causes floods.
3. Increased melting of Ice :-  
Due to increased temperature, melting of ice can increase that can cause destruction.
4. Stronger Hurricanes & cyclones :- Due to global warming, frequency of cyclones can increased. that causes destruction everywhere.
5. Droughts & storms :-  
Due to increased temp. of earth, Droughts & storms can occur again & again.

Q.2 What is Green House effect?

Ans:- It is a natural process that warms the earth's surface & atmosphere, when solar energy reaches the earth's surface, some of it is reflected back to space & rest is absorbed. & that absorbed heat increases the temp. of the green houses, which keeps them warmer even at night also. This effect is called green house effect.

Q.3. Name the green House Gases.

Ans:-

- ①  $\text{CO}_2$
- 2) Methane
- 3) Nitrous oxide
- 4) Ozone
- 5) Chloro Fluoro Carbons (CFCs)
- 6) Water vapours.

Q.4. How the Green Houses are useful for farmers?

Ans:- Green House is a house of glass with its roof & walls made up of glass also. Farmers can grow non-seasonal flowers & delicate plants, fruits etc. in it even in winter season. So it is beneficial for them.

Q.5 What is ozone layer? where it is present?

Ans It is the layer of ozone that is 20-30 km above the surface of earth in the lower region of stratosphere. Its thickness is about 3 to 5 mm. It protects us from UV rays.



Q.6 what is ozone layer Depletion & what are the effects of ozone layer Depletion? ③

Ans

The destruction or breaking up of ozone layer due to various ozone Depleting Substances (ODS) like CFCs, HCFCs,  $\text{CCl}_4$ , methyl chloroform etc present in the atmosphere is called ozone layer Depletion.

### \* Effects of ozone layer Depletion

- 1) Damage to human Health
- 2) Damage to animals.
- 3) Bad effects on Materials like rubber, wood, plastics etc.
4. Bad effects on Environment
5. Threat to Marine / aquatic life.

Q.7. How can we prevent ozone layer Depletion?

Ans

- 1) Say no to pesticides & insecticides.
- 2) Prohibit the use of Nitrous oxide.
- 3) Use of Eco-friendly products
- 4) Minimum Use of Private vehicles
- 5) Planting more & more trees.
- 6) Use of manures as compared to chemical fertilizers.

Q.8

what is Acid Rain? Give its types.

Ans

Acid Rain:- Presence of excess amount of acid in the rain water is called Acid rain.

When the oxides of S, N & C etc comes in

Contact of rain water <sup>or water vapours</sup> they become acids.

& when it rains, this acid falls on earth in the form

Types of Acid Rain →

- a) Dry acid Rain → In this oxides of S & N etc get deposited on the surfaces of buildings, plants etc.
- b) Wet Acid Rain → In this snow, dew, fog, mist etc are ~~the~~ responsible for this type of rain.

Q 9 What are the harmful effects of Acid Rain?

- Ans
- 1) Damage to buildings.
  - 2) Damage to aquatic life.
  - 3) Damage to green plants & forests.
  - 4) It can pollute water resources.
  - 5) Causes asthma & bronchitis in human beings.
  - 6) Corrosion of metals can occur.
  - 7) Photosynthesis is reduced.
  - 8) Corrosive coatings on automobiles, etc.

Q 10 How can we control Acid Rain?

Ans 1) By control of emission of  $\text{SO}_2$  &  $\text{NO}_2$  from Industries, automobiles etc.

2) Limited use of fossil fuels.

3) Liming of lakes & soil.

4) A protective layer can be made on ~~of~~ inner side of water pipes for drinking water.



Continuing of Last chapter of EVs  
Q.11. What is recycling of materials?

5

Ans Recycling :- The process of converting waste materials into new materials. It is an alternative to conventional waste disposal. It is an important component of modern waste management techniques.

Q.12 What are advantages of Recycling?

Ans

- 1) It minimise pollution.
- 2) Protect environment.
- 3) Minimise global warming
- 4) Conserve natural Resources
- 5) It reduces the waste in landfill sites.
- 6) Reduces energy consumption.
- 7) Increases job opportunities.

Q.13 What are the disadvantages of Recycling?

Ans

- 1) Products from Recycled waste may not be durable.
- 2) It is not widespread on large scale.
- 3) High upfront Capital<sup>cost</sup> that means starting cost of building a recycling plant is high.
- 4) Recycling sites are always unhygienic, unsafe & ugly.
- 5) Always good products are not guaranteed.
- 6) Low quality jobs.

Q 14

What are Green Building? Name the Components of Green Building. (6)

Ans

Green Building:- the type of construction which uses less water, optimizes energy efficiency, conserves natural resources, generate less waste & provides healthy space for occupants as compared to conventional building.

"Means ऐसी कोई भी construction करना जिसमें Input कम और output ज्यादा हो और वो Environment के लिए भी safe or फायदेमंद हो।"

\* Components of Green Building

- a) Site selection → (Proper जगह select करना)
- b) Materials & Resources → (आसपास मिलने वाले सामानों और संसाधनों का इस्तेमाल करना)
- c) Water efficiency  
(पानी का पुरा प्रबंध करना और पानी के निष्कासन का अच्छे से इंतजाम करना)

Q 15 What are the various benefits of Green Buildings.

Ans 1) Environment Benefits

- a) Reduce wastage of water.
- b) Conserve natural resources
- c) Improve air & water quality.
- d) Protect ecosystem.

2) Economical Benefits & Social Benefits

- a) Improve quality of life
- b) Reduce operating cost
- c) create market for green products.
- d) Improve health & minimise strain.



# Environmental Legislation

(1)

Q1 Environmental Legislation → It is the collection of laws & regulation pertaining to air quality, water quality, endangered wildlife & all other environmental factors, which reduces threat to the environment & increases public health.

Q2 What is water (Prevention & control of pollution) Act) 1974?

Ans This act was given in 1974. This act was mainly for the prevention & control of pollution of water. Various functions of Central Board and state board for this act are given below.

\* Functions of Central Board

- 1) To advise the central government for various matters related to prevention & control of water pollution.
- 2) To coordinate the activities of the state Boards.
- 3) To provide technical assistance & guidance to state Board.
- 4) To organise the training for persons related to water pollution.
- 5) To collect the statistical data related to water pollution, its control & provide information to all.

6. To plan & organise a nation-wide programme for the prevention, control or abatement of water pollution.

### \* Functions of State Board →

- 1) To advise the state Government on any matter related to prevention & control of water pollution.
- 2) To coordinate the activities of Central board.
- 3) To collect & provide information related to water pollution to all.
- 4) To organise training programmes related to its control.
- 5) To evolve new methods for utilization of sewage & its effluents in agriculture.
- 6) To conduct the investigation & research related to the problems of water pollution.
- 7) To advise the state government for location of any industry regarding to pollute a stream or well.

Q 3. What is Air (Prevention & Control of Pollution) Act 1981?

Ans This act was given in 1981 for the prevention & control of pollution of air. Various functions related to central board & state board are as given below.



- ✓ 29m  
17 of 1/2
- ③
- Functions of Central Board
- 1) To advise the central government on any matters regarding to control of air pollution.
  - 2) To organise & plan a nation-wide programme to control air pollution.
  - 3) To coordinate the activities of state Board.
  - 4) To provide technical assistance & guidance to the state Board.
  - 5) To organise training for the persons related to air pollution.
  - 6) To lay down the standards for quality of air.
  - 7) To collect <sup>data</sup> & provide information to all public regarding air pollution.

#### \* Functions of State Board

- 1) To advise the state government on any matter regarding control of air pollution.
- 2) To organise nation-wide programmes for all persons related to this.
- 3) To collect & provide information to all related to air pollution.
- 4) To coordinate with central Board in organising the training programs related to air pollution.

- 5) To inspect air pollution control areas, to some intervals of time & take steps for <sup>sub</sup> control of air pollution.
- 6) To advise state government for location<sup>x</sup> of any industry so that no harm can take place to air quality.
- 7) To lay down the standards of air pollution.

Q4 What is Environment (Protection) Act 1986?  
What are the functions of state Board & Central Board?

Ans This act came into action on 19 Nov. 1986.  
This act was basically for <sup>raising</sup> the issues regarding the protection & improvement of the quality of environment.

\* Functions of Central Board:-

- 1) To lay down the standards of quality of environment.
- 2) To lay down the standards for emission of environment pollutants.
- 3) To lay down the procedures & safeguards for handling the hazardous substances.
- 4) To establish the environmental laboratories.
- 5) To prepare manuals, codes etc for prevention & control of environmental pollution.



Q. To examine such manufacturing processes, materials, substances as are likely to cause environment pollution.

7) To restrict areas in which any ~~any~~ Industries are there must be having safeguards.

### \* Functions of State Board

- 1) To plan nationwide programs for the control of environment pollution.
- 2) To advise state government on any matter regarding prevention & control of environment pollution.
- 3) To collect & provide information to all.
- 4) To lay down the standards of environment pollution.
- 5) To evolve new methods for control of environment pollution.
- 6) To conduct & investigate researches regarding these issues.
- 7) To provide training to people to aware about environment protection.
- 8) To inspect the air pollution control areas.

Q5:- What is Environmental Impact Assessment? (EIA)

Ans:-

What is Environment Impact Assessment? (EIA) ⑥

What are the stages of it?

It is the process of evaluating the effects (Both beneficial & adverse) of a proposed project on the environment & human health.

\* Stages of EIA (Environment Impact Assessment)

- ① Screening → to study the proposed project.
- 2) Scoping → to identify the various scopes of the project.
- 3) Assessment & Evaluation of Impacts → To identify & evaluate the impacts of a project.
- 4) Reporting the Environmental Impact Statement → to make a environment management Plan (EMP) & a non-technical summary for the general public.
- 5) Review of the Environmental Impact Statement (EIS) → to make the review of the project based on scoping & impacts.
- 6) Decision Making:- ~~Decide~~ whether to approve the project or not.
- 7) Monitoring, Compliance, Enforcement & Environmental-Auditing → to monitor, to find all impacts, to get related solutions of EMP in a timely manner.



Q.6 what is Energy Conservation Act (2001)?

Ans This act basically act upon the energy consumption standards for notified equipments & appliances & to direct the mandatory display of label on appliances.

Following necessary actions were taken by central & state Boards for energy conservation according to this act -

- 1) Prohibit the manufacturing & sale of the equipments on which energy standards are not mentioned.
- 2) To establish the energy consumption standards for <sup>designated</sup> consumers.
- 3) Get energy audit of the buildings after regular interval of time.
- 4) Direct the designated consumers to appoint certified energy manager incharge.
- 5) To have a proper check on overuse of energy.
- 6) Prepare & implement schemes for efficient use of energy.
- 7) To furnish information with regard to energy consumption.
- 8) To take all the necessary steps to create awareness to people for efficient use of energy.

What is Energy Conservation (Amendment) Act 2010. ? (3)

the energy conservation act was amended in year 2010 & main points are given as below.

- 1) The central government may issue the energy saving certificate to the designated consumers whose energy consumption is less.
- 2) This amendment act increases the penalty specified for offences committed under the original act.
- 3) The consumers whose energy consumption is more than the standards, must be directed to comply with the standards.
- 4) The central government can prescribe the value of per metric tons of energy consumed.
- 5) The Government could specify energy conservation building codes for energy demand of the buildings.
- 6) An Appellate Tribunal must be specified for hearing the issues regarding energy consumption.



Some short questions of this chapter of EVS (4)

- 1) Full form of EIA → Environment Impact Assessment
- 2) Full form of EMP → Environment Management Plan
- 3) " " " " EIS → Environment Impact Statement
- 4) When was energy conservation act given?

Ans in 2001.

- 5) When was energy conservation Amendment Act was given?

Ans in 2010.

Q.6 Name some green house gases.

Ans  $\text{CO}_2$ ,  $\text{CH}_4$ , Nitrous oxide, ozone, CFCs.

Q.7 What is the thickness of ozone layer?

Ans 3 to 5 mm

Q.8 Where <sup>does</sup> ozone layer exists?

Ans in stratosphere about 20-30 km above the earth's surface.

Q.9 Full form of ODS & name some ODS?

Ans ODS → Ozone Depleting Substances

Some ODS are → CFCs, HCFCs,  $\text{CCl}_4$ , methyl chloroform etc.

Q.10 When was Air pollution & Prevention Act given?

Ans In 1981

Q.11 When was environment Protection Act given?

Ans In 1986

Q.12 Which gas is responsible for global warming?

Ans  $\text{CO}_2$

Q.13 What is the meaning of 3R hierarchy?

Ans → Reduce, Reuse, Recycle