CBSE Test Paper-04

Chapter 14 Environment Sustainable Development

1. _____refers to the maximum limit within which waste can be assimilated by the environment without degradation. **(1)**

   a. Carrying capacity
   b. Opportunity cost
   c. Absorptive capacity
   d. Assimilation capacity

2. The _____of the environment implies that the resource extraction rate is not above the rate of resources regeneration. **(1)**

   a. Opportunity cost
   b. Absorptive capacity
   c. Assimilation capacity
   d. Carrying capacity

3. Two major environmental issues facing the world today are _____and_____ **(1)**

   a. global warming and air pollution
   b. ozone depletion and pollution
   c. global warming and ozone depletion
   d. air pollution and noise pollution

4. In Delhi, the use of _____ as fuel in public transport system has significantly lowered air pollution. **(1)**

   a. LPG
   b. CNG
   c. petrol
   d. None of these

5. How do thermal power plants cause adverse impact on environment? **(1)**

6. What happens when the rate of resource extraction exceeds that of their

regeneration? **(1)**

7. When and why was the Central Pollution Control Board (CPCB) set up? **(1)**
8. What is the dichotomy about causes of environmental degradation in India? **(1)**
9. 70 lakhs cars get added on the roads of metropolitans every year. Is it justified? What policy measures can you suggest? **(3)**
10. Indian lifestyle was quite environment friendly but globalisation has brought a change in life style which is not environment friendly. Do you agree? Justify your answer. **(3)**
11. Differentiate between biotic and abiotic elements of environment. **(4)**
12. Identify the factors contributing to environmental degradation in India. **(4)**
13. Explain carrying capacity of environment with examples. **(4)**
14. Explain the relevance of intergenerational equity in the definition of sustainable development. **(6)**
15. Outline the steps involved in attaining sustainable development in India. **(6)**

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Answers

1. c. Absorptive capacity
   Explanation: Absorptive capacity means the ability of the environment to absorb degradation.
2. d. Carrying capacity
   Explanation: Carrying capacity implies that the resource extraction is not above the rate of regeneration of the resource and the wastes generated are within the assimilating capacity of the environment.
3. c. global warming and ozone depletion
   Explanation: Global warming and ozone depletion show an increasing trend globally and both are harmful for the survival of living organisms on earth.
4. b. CNG
   Explanation: CNG never produce smoke. CNG is Eco friendly.
5. Thermal power plants emit large quantities of carbon dioxide in the environment and pollute water, land and environment. This, in turn, contributes to climate change.
6. When the rate of resource extraction exceeds that of their regeneration, the environment fails to prefer an important function, i.e. it fails to sustain life by providing genetic and biodiversity. This results in an environmental crisis.
7. In order to address three major environmental concerns in India, viz water, air and land pollution, the government set up the Central Pollution Control Board (CPCB) in 1974. It was established in 1974 under the Water (Prevention and Control of Pollution) Act, 1974.
8. Rich class blame the poor for environmental degradation on one hand whereas poor blame the rich on the other hand.
9. It is not justified from environment point of view but no individual is so concerned for the environment that he sacrifices his own comfort for the sake of environment. I feel surprised when even the managers and employees of environment related organizations

are also found indulged in such activities. First thing is to create a true awareness about environment which is not at mouth level but at actions level. Secondly, we need to improve public transport system so that people need not run after a personal car. Construction of metro train is a good step in this direction by the government.

10. It is quite right that Indian lifestyle is environment friendly. People use local materials to build houses, natural cycle is followed in agriculture so that soil is replenished. They are habitual of working during day hours and hence, electricity consumption is less. But due to globalisation, we have come in contact with western nations. It has affected our old ways and our lifestyles are no more environment friendly.Following points describe how change in life style of our people has not proved environment friendly:

    a. Globalization has led to an increase in the consumption of products, which has impacted the ecological cycle. Increased consumption leads to an increase in the production of goods, which in turn puts stress on the environment.
    b. Globalization has also led to an increase in the transportation of raw materials and food from one place to another.The amount of fuel that is consumed in transporting these products has led to an increase in the pollution levels in the environment.
    c. Due to globalization and industrialization, various chemicals have been thrown into the soil which have resulted into the growth of many noxious weeds and plants. This toxic waste has caused a lot of damage to plants by interfering in their genetic makeup.

11.

Basis	Biotic elements	Abiotic elements
Meaning	Biotic elements include all living elements	Abiotic elements include all non-living elements.
Example	The birds, animals and plants, forests, fisheries etc	abiotic elements include air, water, land rocks and sunlight etc.
Classification	Biotic components can be classified as producers, consumers and decomposers.	Abiotic components can be classified as renewable and non-renewable resources.
	Measurement of biotic	Measurement of abiotic

Measurement	components is subjective.	components is objective.
Adaptability	Have the ability to adapt to changes in environment.	Unable to adapt to changes in environment.

12. The factors contributing to environmental degradation in India are:

    i. Degradation of Land
    ii. Deforestation
    iii. Air Pollution
    iv. Water Pollution
    v. Solid and Hazardous Wastes
    vi. Faulty Utilisation of Natural Resources
    vii. Loss of Bio-diversity
    viii. Pest Problem
    ix. Agricultural Wastes
    x. Industrial and Atmospheric Pollution
    xi. Environment Problems from Faulty Mining Practices.

13. Carrying capacity of the environment may be defined as the amount of natural resources which can be drawn from it and the maximum amount of pollutants that can be discharged without damaging the environment seriously. For example, crude petroleum, which is the source of petrol and diesel used in motor vehicles is available in limited supply and it is a non renewable source of energy. So we have to be careful in using these resources. But the rate at which these resources are being used, it will slowly lead to the depletion of this resource. Similarly, air pollution has created a problem of ozone depletion. Air pollution has developed a hole which has exposed human life to the dangerous ultraviolet rays of the Sun. Hence, industrial development must be in accordance with the carrying capacity of the environment and we should be careful in using the renewable as well as non renewable sources of energy.

14. Sustainable development in itself makes it obligatory for the development process to be such that the basic needs of nut only the present generation but also of the future generations arc taken care of. It becomes the moral duty of this generation to hand over the earth to the future generation in good form.

Therefore, it the resources are overused or misused, they will deplete so fast that the production capacity of the future generations would not be sustainable. Sustainable development aims at maximizing the welfare of both present and future generations. It does not mean hindering the existing pace of economic growth, bill refers to a judicious or optimum utilization of resources in such a manner that pace of economic growth sustains with inter-generational equity.

15. Steps involved in attaining sustainable development in India are outlined below:-

    i. Population Control Limiting the human population to a level within the carrying capacity of the environment is the first step to be followed for attaining sustainable development as population is exerting tremendous pressure in terms of demand for resources which is more than the absorptive capacity of the environment leading to environmental crisis.
    ii. Efficient Utilization of Resources Technological progress and industrialization should be input efficient and wastage of resources should be minimised by proper utilization. This will help to produce more with lesser amount of resources and thus depletion of resources will be slower.
    iii. Control of Over Extraction Rate of extraction of renewable resources should not be exceed the rate of regeneration so that they are extracted on a sustainable basis.
    iv. Control of Depletion Rate of depletion of non-renewable resources should not exceed the rate of creation of renewable substitutes so that environmental crisis does not emerge and resources are available for the future generations.
    v. Pollution Control Pollution in all forms has a negative environmental impact which has high opportunity cost. Hence, control of pollution is a must to maintain the quality of natural resources such as air and water for sustainable development.
    vi. Use of Non-Conventional Energy India is hugely dependent on thermal and hydro power plants to meet its power needs which have adverse environment impacts. Wind power and solar fays are cleaner and greener energy sources which should be explored on a large scale by developing technological devices along with non-conventional sources like nuclear energy.