



## BIOLOGY

### BOOKS - PRADEEP BIOLOGY (HINGLISH)

#### ENVIRONMENTAL ISSUES

##### Curiosity Questions

1. How does the particulate matter of the air contribute to "global cooling"?



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2. How do the fertilisers and pesticides used on farm land pollute the water-sources?



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3. Why does radiation kill the cancer cells?



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4. How can noise pollution cause deafness?



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5. Cloudy nights are warmer than the nights with clean sky.  
Explain.



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1. What are the various constituents of domestic sewage? Discuss the effects of sewage discharge on a river.

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2. List all the wastes that you generate, at home, school or during your Trips to other places, could you very easily reduce? Which would be Difficult or rather impossible to reduce?

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3. Discuss the causes and effects of global warming. What measures need to be taken to control global warming ?

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4. Match column I with column II and select the correct option from the given codes.

Column I

Column II

Catalytic converter

(i) Used in industries and power plants

Electrostatic precipitator

(ii) Used in automobiles

Earmuffs

(iii) High noise level

Land fills

(iv) Solid wastes



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5. Write critical notes on the following:

(a) Eutrophication

(b) Biological magnification

(c) Groundwater depletion and ways for its replenishment .



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6. Why does ozone hole form over Antarctica ? How will enhanced ultraviolet radiation affect us ?



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7. Discuss the role of women and communities in protection and conservation of forests.



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8. What measures, as an individual, you would take to reduce environmental pollution?



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**9.** Discuss briefly the following:

- (i) Radioactive wastes
- (ii) Defunct ships and e-wastes
- (c) Municipal solid wastes.

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**10.** What initiatives were taken for reducing vehicular air pollution in Delhi? Has air quality improved in Delhi ?

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**11.** Discuss briefly the following:

- (a) Greenhouse effect
- (b) Catalytic converter
- (c) Ultraviolet -B.



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## Additional Questions Very Short Answer Questions

1. What are the 5 main types of pollution?



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2. Name the major surface water pollutant from farm run-off and bathroom water.



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3. Air pollutant photochemical oxidants include



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4. What is PAN?

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5. What are aerosoles?

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6. Jet aeroplanes releases pollutants in air called

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7. How can  $SO_2$  pollution of air be checked?

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8. Why are tall chimneys recommended for factories?

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9. What is BOD?

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10. Give the source of pathogens into water.

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11. Name the types of pollutants according to their natural disposal.

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12. Mention the kinds of pollutants regarding the form in which they persist after environment.

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13. What is Eutrophication ?

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14. What is nuclear fallout?

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15. Which is a greater air pollutant, man or nature?

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16. Can useful materials cause pollution? Cite one example.

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17. Does nature produce pollutants? Cite two examples.

 Watch Video Solution

18. What are biodegradable pollutants? Give one example.

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19. Name three nondegradable pollutants.

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20. What are secondary pollutants? Mention 2 examples.

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21. How much pollution of air is due to human activities ?

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22. How does CO cause giddiness and exhaustion?

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23. Why does  $NO_2$  irritate eyes and nose?

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24. Which is the sure indicator of air pollution?



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25. At what intervals jhuming can be harmful to forests?



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26. What do you mean by biological magnification?



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27. Define noise.



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28. What are point sources of pollution?

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29. What is Ozone hole?

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30. Which one of the following is not a green house gas ?

$CO_2$ ,  $CH_4$ ,  $O_2$ ,  $CFCs$ .

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31. What do you mean by e-waste ?

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[Watch Video Solution](#)

**32.** CNG stands for

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**33.** Name the city in our country where the entire public road transport runs on CNG.

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**34.** Name the world's most problematic aquatic weed. What in the nature of the water body in which the weeds grow abundantly ?

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**35.** Between amphibians and birds, which will be able to cope with global warming? Given reason.

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**36.** How is snow-blindness caused in humans?

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**37.** Mention the information that the health workers derive by measuring BOD of a water body.

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**38.** In which year was the Air (Prevention and Control of pollution) Act amended to include noise as air pollution.

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**39.** Name the city in our country where the entire public road transport runs on CNG.

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**40.** What is the raw material for polyblend?

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**41.** Name an industry which can cause both air and thermal pollution and as well as eutrophication.

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**42.** How do algal blooms affect the life in water bodies?

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**43.** Name one device for controlling air pollution.

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**44.** Expand BPO

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**45.** State the cause of Accelerated Eutrophications.



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**46.** Write the name of the organism that is referred to as the "Terror of Bengal".



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**47.** Name the Green House that contribute to total global warming.



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**48.** List two advantages of the use of unleaded petrol in automobiles as fuel.

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**49.** Mention two advantages for preferring CNG over diesel as an automobile fuel.

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**50.** An electrostatic precipitator in a thermal power plant is not able to generate high voltage of several thousands. Write the ecological implication because of it .

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## Additional Questions Short Answer Questions

1. How did pollution of environment start?



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2. What is synergism?



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3. Differentiate between contamination and pollution.



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4. What are quantitative pollutants?



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5. Name a few pollutants added to air by nature.

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6. Which is the major air pollutant? Give its source.

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7. Give the till effect of benzpyrene. Mention its sources also.

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8. What do you mean by Biochemical Oxygen Demand (BOD)?

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9. What is senescence of a water body?

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10. What is biological magnification? Will the levels of this magnification be different at different levels of the ecosystem?

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11. What are radioactive elements. Cite a few examples.

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12. How do radiations affect the cells?

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13. What is pyrolysis?

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14. How does nature depollutes the air?

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15. Name the 5 main types of pollutants.

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16. List the gaseous pollutants of atmosphere.



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17. Name 3 types of particulate pollutants of air.

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18. All the 3 kinds of water are polluted. Name them.

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19. What are index species?

 [Watch Video Solution](#)

20. What is thermal pollution?

 [Watch Video Solution](#)

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21. What is minimata disease?

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22. Which plant can absorb heavy metals ? How is this useful?

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23. What are the 2 types of sources of water pollution?

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24. What temperature range fishes can tolerate?

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25. Sound of what intensity is harmful for ears?



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26. Thermal power plants are inevitable in an industrial and densely populated country like ours. What harm do they do the environment? Also mention any precaution that could be taken to save our environment.



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27. DDT content in the water of a lake that supplies drinking water to the nearby villages, is found to be 0.003 ppm. The kingfishers of that area reported to have 2 ppm of DDT. Why has the

concentration increased in these birds ? What harm will this cause to the bird population ? Name the phenomenon.

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**28.** Explain accelerated eutrophication. Mention any two consequences of this phenomenon.

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**29.** A crane had DDT level as 5 ppm in its body. What would happen to the population of such birds?

Explain giving reasons.

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**30.** During the secondary treatment of the primary effluent how does the significant decrease in BOD occurs?

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**31.** Match the items given in column I with items (one or more) given in column II.

- |                                   |                             |
|-----------------------------------|-----------------------------|
| (i) Biodegradable pollutants      | (a) D.D.T.                  |
| (ii) Non-biodegradable pollutants | (b) PAN                     |
| (iii) secondary pollutants        | (c) Low temperature         |
| (iv) Photochemical smog           | (d) Organic wastes (Sewage) |
| (v) Classical smog                | (d) Organic wastes (Sewage) |
|                                   | (e) High temperature        |
|                                   | (f) Ozone                   |
|                                   | (g) Cadmium                 |

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**32. Match the column I with Column II**

- |                         |                                   |
|-------------------------|-----------------------------------|
| (i) Diesel automobile   | (i) Nitrogen                      |
| (ii) Methemoglobinaemia | (ii) $SO_2 / SO_3$                |
| (iii) Ozone hole        | (iii) Suspended particular matter |
|                         | (iv) Excess fluoride in water     |
|                         | (v) Excess nitrate in water       |
|                         | (vi) CFCs                         |
|                         | (vii) 100 km wide hole            |
|                         | (viii) Can be fatal to infant     |

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**33. How does an electrostatic precipitator work to remove particulate pollutants released from the thermal power plants ?**

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**34. Chlorofluorocarbons (CFCs) are widely used as refrigerants.**

Then why it is suggested to reduce its emission as far as possible

? Explain



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**35.** Mention the major cause of air pollution in metro cities. Write any three ways by which it can be reduced.



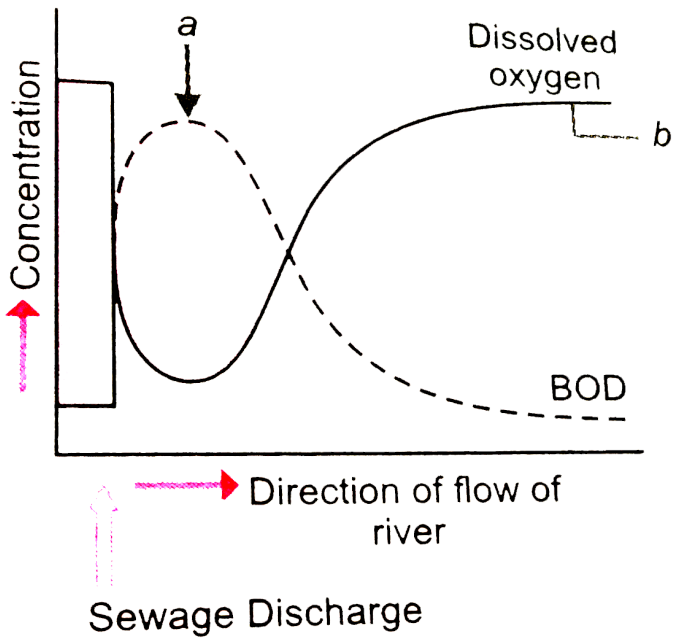
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**36.** Mention how e-waste is produced and disposed off. Write the solution for its treatment.



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**37.** Explain giving reasons the cause of appearance of peaks 'a' and 'b' in the graph shown below:



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**38.** What is hybrid vehicle technology ? Explain its advantages with a suitable example?

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**39.** Is it true that if the dissolved oxygen level drops to zero, the water will become septic. Given an example which could lower the dissolved oxygen content of an aquatic body.

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**40.** It is a common practice to plant trees and shrubs near the boundary walls of buildings. What purpose do they serve?

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**41.** The Montreal Protocol refers to:

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**42.** Name any two source of e-wastes and write two different ways for their disposal.

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**43.** Explain the process of secondary treatment give to the priamry efflueint up to the point it shows significant change in the level of biological oxygen demand (BOD) in it.

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**44.** Explain the different steps involved during primary treatment phase of sewage.

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**45.** Explain the relationship between CFC's and Ozone in the stratosphere.

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**46.** Plenty of algal bloom is observed in a pond in your locality.

a) Write what has caused this bloom and how does it affect the quality of water.

b) Suggest a preventive measure.

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**47.** List four benefits to human life by eliminating the use of CFCs.

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**48.** How did a citizen group called Friends of Arcata Marsh, Arcata, California, USA, help to improve water quality of the marshland using Integrated Waste Water Treatment ? Explain in four steps.

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**49.** How do automobiles filled with catalytic converters reduce air pollution ? Suggest the best fuel for such vehicles.

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**50.** Distinguish between the primary and secondary air pollutants

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**51.** What is particular matter? How do particular matters harm human health?

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**52.** What is photochemical smog? How does smog affect the biological world?

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**53.** What is acid rain? What are its effects on plants?

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**54.** Describe the ways by which soil gets polluted.



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55. What are the control measures used for controlling soil pollution?

 [Watch Video Solution](#)

56. What is meant by environment pollution?

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57. What are pollutants? How are they classified?

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58. How is underground water polluted?



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59. What do you know about ocean water pollution?



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60. Why should atomic explosions be stopped?



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61. What problems atomic reactors can cause?



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62. How is soil salinity caused?

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**63.** "Air pollutions can change climate". Comment on this statement.

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**64.** Automobiles are the largest single air pollutants. Justify.

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**65.** How has the use of high-yielding varieties of crops contributed to water pollution?

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**66.** List a few types of culturable waste lands.



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**67.** Why are nuclear power plants considered as a threat to ecological security?



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**68.** Explain the basis of public movement for total ban on nuclear tests.



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**69.** What are the effects of noise pollution on human health?



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**70.** Pollution is readily transferred between the components of the life-supporting system. Cite one example

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**71.** Describe the procedure for the overall control of pollution

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**72.** What for the following abbreviation stand?

CFC, PCB, HC, PAN, BOD, dB, ppm.

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**73.** In what ways do the inorganic wastes enter water?

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**74.** Explain ozone layer, its depletion and effects of ozone depletion.

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**75.** What is the environment significance of the increasing Antarctica ozone hole?

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**76.** It has been recorded that the temperature of the earth's atmosphere has increased by  $0.6^{\circ}C$ .

- (a) What has caused this increase ?
- (b) Explain its consequences.

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**77.** A factory drains its waste water into the nearby lake. It has caused algal bloom.

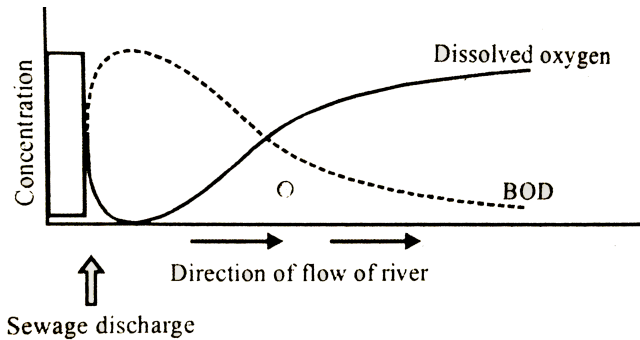
- (a) How was the algal bloom caused ?
- (b) What would be the consequences ?
- (c) Name the phenomenon that caused it .

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78. Study the graph given below and answer the question that follow ?

(i) What is relationship between dissolved oxygen and biochemical oxygen Demand (BOD) ?

(ii) Mention their effect on aquatic life in the river.



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79. Explain the causes of global warming. Why is it a warning to mankind?

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**80.** Explain any three measures which will control vehicular air pollution in Indian cities.

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**81.** Ornithologists observed decline in the bird population in an area near a lake after the setting of an industrial unit in the same area. Explain the cause responsible for the decline observed.

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**82.** Particulate and gaseous pollutants along with harmless gases are released from the thermal power plants.

(i) Name any two harmless gases released. (ii) Name the most widely used device of removing particulate pollutants from the air. Explain how the device is used.



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83. Name any one green house gas and its possible source of production on a large scale . What are the harmful effects of it ?



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84. How does an electrostatic precipitator work ?



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85. How has DDT caused decline in bird population ?



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**86.** (a) State the consequence if the electrostatic precipitator of a thermal plant fails to function.

(b) Mention any four methods by which the vehicular air pollution can be controlled.

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**87.** Jhuming cultivation leads to deforestation. How does it affect the soil? Give three points.

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**88.** Write about the effect of global warming on food production.

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**89.** Explain the term eutrophication with suitable example.

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**90.** How have human activities caused desertification ? Explain.

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**91.** How does algal bloom destroy the quality of a fresh water body ? Explain.

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**92.** With the help of a flow - chart exhibit the events of eutrophication .

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**93.** "Determination of Biological oxygen demand (BOD) can help in suggesting the quality of a water body." Explain

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**94.** With the help of a flow chart, show the phenomenon of biomagnification of DDT in an aquatic food chain.

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**95.** Secondary treatment of the sewage is also called Biological treatment Justify this statement and explain the process.

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96. Explain the characteristics of a river when urban sewage is discharged into it.

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97. Explain the different steps involved in the secondary treatment of sewage.

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## Additional Questions Long Answer Questions

1. Define pollution Compare the biodegradable and non-biodegradable pollutants.

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2. What do you understand by fixed and mobile sources of air pollution?

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3. What measures do you suggest to control pollution from automobile exhausts?

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4. Distinguish between point and non-point sources of water pollution.

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5. Why are industrial effluents more difficult to manage than municipal sewage? Name a disease that is caused by heavy metal contamination.

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6. How can pollution by domestic sewage be controlled?

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7. What is noise ? Describe briefly the effects of noise on human health.

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8. Discuss the effects of atmospheric pollution.



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9. Suggest measures to control air pollution.



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10. How can water pollution be controlled?



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11. Write a note on treatment of waste water.



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**12.** What is meant by soil pollution ? Name the different types of soil pollutants. Give their sources also.

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**13.** Suggest measures of controlling soil and landscape pollution.

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**14.** Discuss the ways in which land is degraded. Suggest steps to check land degradation.

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**15.** Give measures for the proper management of land and water.

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**16.** What is radioactivity? Discuss the man-made radioactive pollution.

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**17.** Give the common effects of radioactive pollution. List the steps for its control.

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**18.** Mention the steps which can check or reduce noise pollution.

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19. What is environment pollution? Can it occur without human intervention? Explain.

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20. Name the major atmospheric pollutants and their sources.

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21. Account for the causes of smog, acid rain, and green house effect. How do they affect us?

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22. What are the major causes of water pollution? Explain.



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**23.** State the effects of sewage contamination of surface water.

What steps should be taken to prevent sewage pollution.

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**24.** In aeration tank, bacteria serve to ..... organic matter, and algae serve to..... for bacterial growth.

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**25.** Effluent from secondary treatment contains..... which are killed by.....

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26. Oxides of carbon that pollute air are.... and .....

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27. Two oxides of nitrogen pollute air....and ...

 [Watch Video Solution](#)

28. Oxides of sulphur which pollute air include ..... and ....

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29. A highly toxic photochemical oxidant is PAN, i.e....

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**30.** PAN is formed by interaction of oxides of nitrogen and .... In the presence of .....

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**31.** Aerosols are air pollutants contributed by...

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**32.** A substance that affects soil productivity is called..... Pollutant.

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**33.** Soil pollution is of 2 type : positive and.....

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**34.** Loss of soil fertility due to the damage of top layer is called....  
soil pollution.

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**35.** Reduction of soil productivity due to addition of harmful chemicals is termed .....soil pollution.

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**36.** Aerosols damage the protective ....shield

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**37.** Ozone layer in the higher atmosphere screens out the.....of the sun.

 [Watch Video Solution](#)

**38.** .....pollution may damage ears.

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**39.** Write a short note on electronic waste. List the various sources of e- wastes and the problems associated with its disposal.

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40. Describe various devices used to remove particulate matters from air.

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41. Public all over India is very much concerned about the deteriorating air quality in large parts of North India. Alarmed by this situation the Resident's Welfare Association of your locality organized an awareness programme entitled "Bury not burn" They involved you justify your arguments that promote burying and discourage burning and discourage burning? (Give two reasons).

b) With the help of flow charts, one for each practice depict the chain of events that follow.

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**42.** Looking at the deteriorating air quality because of air pollution in many cities of the country, the citizens are very much worried and concerned about their health. The doctors have declared health emergency in the in cities where the air quality is very severely poor.

(a) Mention any two major causes of air pollution.

(b) Write any two harmful effects of air pollution to plants and humans.

(c) As a caption of your school Eco-club, suggest any two programmes you would plan to organise in the school so as to bring awareness among the students on how to check air pollution in and around the school



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**43.** A national newspaper reported that a 50 metre high 'Sanitary landfill', the dumping site of city's garbage in one of the metro-cities crashed and caused heavy damage and disaster in and around the area. A couple of cars, two-wheelers and cattle were swept away in the nearby overflowing canal. Three persons including a young girl were crushed under the garbage and died.

(a) Write any two points that in your opinion could have caused this landfill crash.

(b) Mention any four preventive measures to be adhered to as a policy which could have avoided this a accident.

(c) Write any two suggestions that you would like to give to the citizens so as to help in preventing such a disaster in future.



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**44.** People living in the coastal areas are forced to evict their dwelling units as the sea has inundated into the land areas. State the possible reasons and suggest measures that could be taken to reduce the deleterious changes in the environment

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**45.** A young sperm whale, 33-foot long was found dead off the coast. It had a large amount of human trash like trash bags, polypropylene sacks, ropes, net segments etc. amounting to 29 kilograms in its digestive system. The whale died because of inflammation of the abdominal lining. Analyze the possible reasons for such mishaps and suggest measures that can be taken to reduce such incident.

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1. It is a common practice to undertake of the overhead water tanks. What is the possible source of silt that gets deposited in the water tanks?

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2. Recently capital of Delhi was in news, immediate after Diwali, when the atmosphere had thick fog due to excessive air pollution. Give technical name of thick fog and its composition.

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3. Why is it desirable to use unleaded petrol in vehicles fitted with catalytic converters?

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4. What is nuclear fall out? How does it reach living organisms?

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5. How CNG is better than Diesel /Petrol ?

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6. Explain the cause of algal bloom in a water body. How does it affect an ecosystem?

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7. (a) How does activated sludge get produced during sewage treatment?

(b) Explain how this sludge is used in biogas production.

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8. What would be the impact on the environment around a thermal power plant if its electrostatic precipitator stops functioning? Give reason.

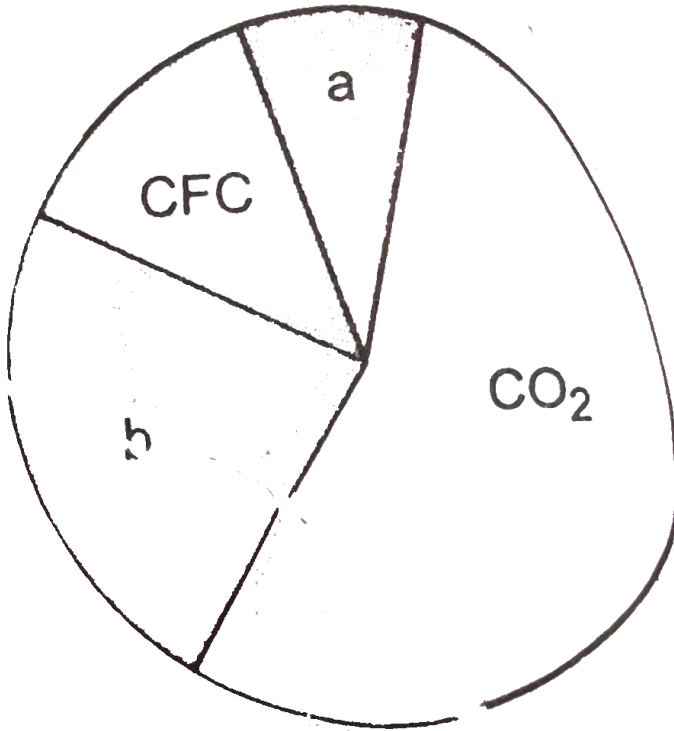
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9. The figure shows relative contributions of various greenhouse gases to the total global warming.

(i) Name the gases (a) and (b)

(ii) Explain how increase in greenhouse gases in earth's

atmosphere leads to rise in sea level?



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10. Microbes play a dual role when used for sewage treatment as they not only help in retrieve usable water but also generate fuel.

Write in points how this happens?

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**11.** Create an aquatic food chain in a water body into which effluents flow from a pesticide factory. Diagrammatically represent and answer the following questions :

(i) What is the phenomenon called? (ii) Explain biomagnification

of pesticide.



Fish eating birds  
(DDT = 5 ppm)



Large fish  
(DDT = 2 ppm)



Small fish  
(DDT = 0.5 ppm)



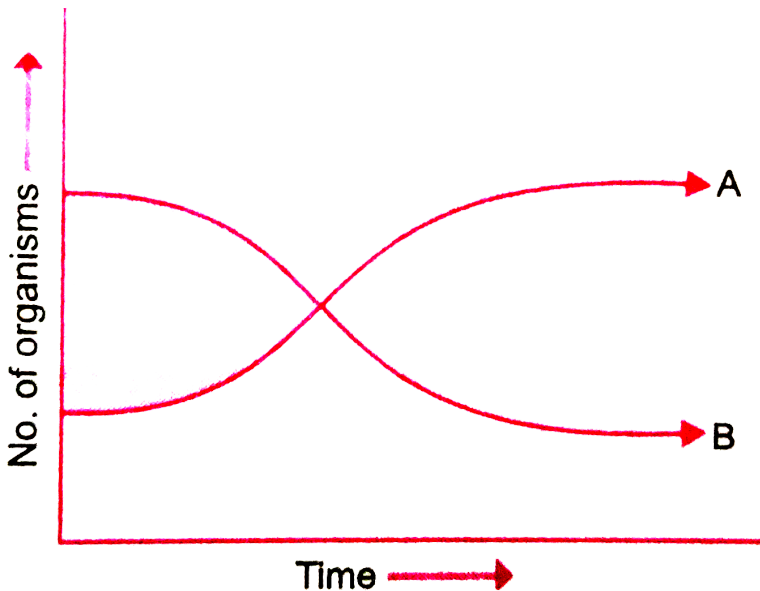
Zooplankton  
(DDT = 0.04 ppm)



Water  
(DDT = 0.003 ppm)

12. (a) The graph below represents the growth patterns of types of aquatic organisms over a brief period of time in a water body surrounded by an agricultural land extensively supplied with fertilizers. Identify what would represent (i) A and (ii) B

(b) State the reason for such a change in the water body and also write the term given to it.



**13.** What are flocs? State their role in effluent treatment and their ultimate fate in sewage treatment tank.

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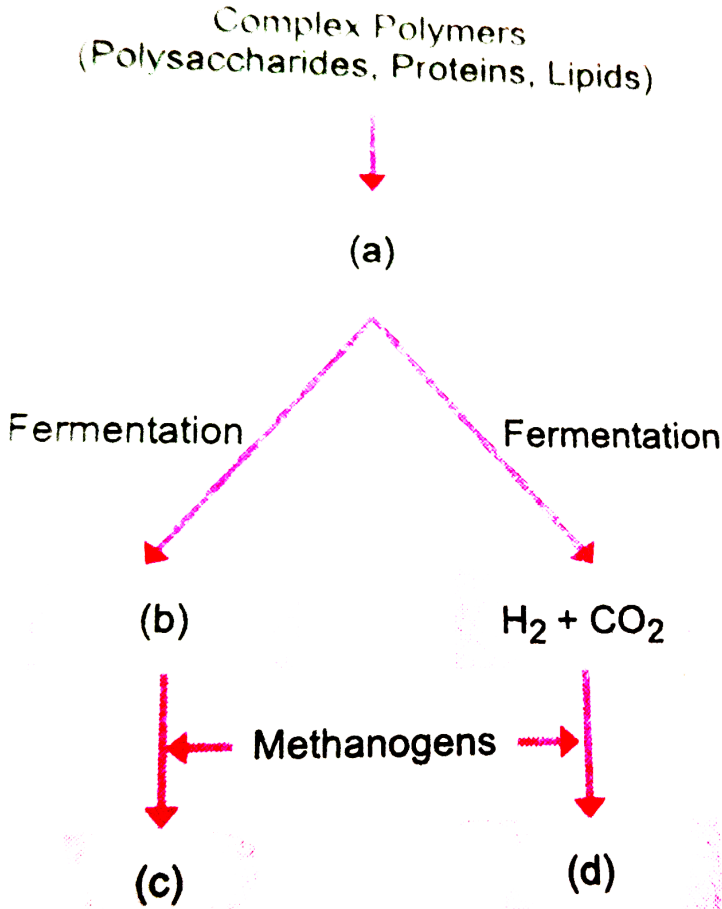
**14. (a)** A decade back, the enormous vehicular traffic in Delhi had made Delhi rank 4th among most polluted cities of the world. Two measures taken by the Delhi government brought marked improvement in air quality by 2005. What were these two measures and how did they reduce air pollution?

**(b)** What is the norm set by Euro-II for petrol and diesel vehicles?

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**15.** Following is the flow chart explaining major microbial processes occurring during anaerobic sludge digestion. Fill in the

blanks(a), (b), (c) and (d). Also explain this treatment.



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16. (a) Name the phenomenon which contributes to keep the earth warmer than the moon.

(b) How it does so?

(c) What are its consequences?

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17. (a) Why are people living in West Bengal prone to black foot disease?

(b) What is blue-baby syndrome ? Explain.

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18. Cloudy nights are warmer than the nights with clean sky. Explain.

 [Watch Video Solution](#)

19. Why is thermal pollution harmful for aquatic animals?

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20. Why does ozone hole form over Antarctica ? How will enhanced ultraviolet radiation affect us ?

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## Practice Questions Multiple Choice Questions

1. The world environment day is celebrate on

A. 6th of June

B. 5th of June

C. 6th of August

D. 5th of May

**Answer: B**



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2. Bhopal gas tragedy in 1984 was caused by

A. Hydrogen cyanide

B. Ammonia

C. 2, 4-Dichlorophenoxy acetic acid

D. Methyl isocyanate

**Answer: D**





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### 3. Expand BOD

- A. Biological oxygen demand
- B. Biosynthetic oxygen demand
- C. Biogeochemical oxygen destroyer
- D. Biogeochemical oxygen dimension

**Answer: A**



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### 4. Biological magnification refers to:

- A. Growth of organisms due to food consumption



- B. Increase in population size
- C. Blowing up of environment issues by man
- D. Increase in conc. of non-degradable pollutants as they pass through food chain.

**Answer: D**

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5. This acts as bioindicator of air pollution

- A. Alga
- B. Lichen
- C. Pinus
- D. Mustard

**Answer: B**



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6. Which of the following is not used for disinfection of drinking water?

- A. chlorine
- B. ozone
- C. chloramine
- D. phenyl

**Answer: D**



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7. Prolonged liberal irrigation of agricultural fields is likely to create the problem of

- A. acidity
- B. aridity
- C. salinity
- D. metal toxicity

**Answer: C**

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8. Identify the correctly matched pair:

- A. Bansal convention: Biodiversity conservation
- B. Kyoto protocol : Climate change

C. Montreal protocol : Global warming

D. Ramsar convention : Ground water pollution

**Answer: B**

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9. More than 70% of world's fresh water is contained in

A. polar ice

B. glaciers and mountains

C. Antarctica

D. Greenland

**Answer: A**

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10. Which one of the following pairs is mismatched?

- A. fossil fuel burning : release of  $CO_2$
- B. nuclear plant : radioactive wastes
- C. solar energy : greenhouse effect
- D. becomes burning: release of  $CO_2$

**Answer: C**



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11. Formation of non-functional mehtaemoglobin causes blue-baby syndrome. This is due to:

- A. excess of arsenic concentration in drinking water
- B. excess of nitrates in drinking water

C. deficiency of iron in food

D. increased methane content in the atmosphere

**Answer: B**

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12. Which one of the following statements pertaining to pollutants is correct?

A. DDT is a non-biodegradable pollutant.

B. excess fluoride in drinking water causes osteoporosis

C. excess cadmium in drinking water causes black foot disease.

D. methyl mercury in water may cause 'Itai Itai' disease

**Answer: A**

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13. Which of the following gases is a major constituent of biogas :

Carbon monoxide, hydrogen, methane, carbon dioxide ?

A.  $CO_2$

B.  $N_2O$

C.  $CH_4$

D.  $N_2$

**Answer: C**



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14. Which of the following is a secondary air pollutant?

A. NO

B.  $NO_2$

C.  $SO_2$

D. PAN

**Answer: D**



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**15.** Limit of BOD prescribed by Central Pollution Control Board for the discharge of industrial and municipal waste water into natural surface water:

A.  $< 30p \pm$

B.  $< 3 \cdot 0 \text{ ppm}$

C.  $< 10 \text{ ppm}$

D.  $< 100 \text{ ppm}$



**Answer: A**



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16. Montreal protocol which calls for appropriate action to protect the ozone layer from human activities was passed in the year:

A. 1985

B. 1986

C. 1987

D. 1988

**Answer: C**



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17. The blue baby syndrome results from

- A. excess of TDS (total dissolved solids)
- B. excess of chloride
- C. methaemoglobin
- D. excess of dissolved oxygen

**Answer: C**



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18. Photochemical smog does not contain

- A. PAN (peroxy acyl nitrate)
- B. ozone
- C. nitrogen dioxide

D. carbon dioxide

**Answer: D**

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**19.** Effect of pollution is observed first on:

A. microorganisms

B. food crop

C. green vegetable

D. herbivores

**Answer: A**

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20. Which is always present in photochemical smog ?

A. ozone

B.  $CO_2$

C.  $SO_2$

D.  $CH_4$

**Answer: A**



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21. Pollution from animal excreta and organic waste from kitchen can be most profitably minimized by

A. storing them in underground storage tanks

B. using them for producing biogas

C. vermiculture

D. using them directly as biofertilizers

**Answer: B**



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**22.** Which one of the following is an environment-related disorder with the correct main cause?

A. block lung disease (pneumoconiosis) found mainly in workers in stone quarries and crushers.

B. blue baby disease (methaemoglobinaemia) due to heavy use of nitrogenous fertilizers in the area.

C. Non-hodgkin's lymphoma found mainly in workers involved in manufacture of neem based pesticides

D. skin cancer mainly in people exposed to benzene and methane

**Answer: B**

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23. The Montreal Protocol refers to:

- A. persistent organic pollutants
- B. global warming and climatic change
- C. substances that deplete the ozone layer
- D. biosafety of genetically modified organisms

**Answer: C**

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24. Which is correct ascending arrangement of BOD of sewage (S) distillery effluent (DE). Paper mill effluent (PE) and sugar mill effluent (SE)

A.  $SE < PE < S < DE$

B.  $PE < S < SE < DE$

C.  $S < DE < PE < SE$

D.  $SE < S < PE < DE$

**Answer: B**



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25. In a coal-fired power plant, electrostatic precipitators are installed to control the emission of

A.  $NO_x$

B. SPM

C. CO

D.  $SO_2$

**Answer: B**



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26. Which one of the following is being utilized as a source of biodiesel in the Indian countryside

Or

An example of Petrocrop is

A. beetroot

B. sugarcane



C. Pongamia

D. Euphorbia

**Answer: D**

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27. Genetically engineered microorganism used successfully in bioremediation of oil spills is:

A. Trichoderma

B. Xanthomonas

C. Bacillus

D. Pseudomonas

**Answer: D**

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28. Increased asthmatic attacks in certain seasons are related to

- A. eating fruits preserved in tin containers
- B. inhalation of seasonal pollen
- C. low temperature
- D. hot and humid environment

**Answer: B**

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29. Which one of the following is no bioindicator of water pollution?

- A. blood worms

B. stone files

C. sewage fungus

D. sludge worms

**Answer: B**



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**30. Aerosols reduce primary productivity by :**

A. decreasing  $O_2$  conc. In atmosphere

B. reducing photosynthesis

C. competing with  $CO_2$

D. being toxic to chloroplast

**Answer: B**





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31. Greenhouse effect is due to

A.  $CO_2$

B. CO

C. NO

D.  $PO_4$

Answer: A



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32. Effect of pollution is first marked on

A. microorganisms

B. green vegetation of an area

C. food crop

D. none of these

**Answer: B**



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**33. Ozone hole results in:**

A. UV radiation reaching the earth

B. Cataract

C. increase in skin cancer

D. all the above

**Answer: D**



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34. Checking of radiating heat by atmospheric dust, water vapour, ozone,  $CO_2$  etc., is known as:

- A. green house effect
- B. solar effect
- C. ozone layer effect
- D. radioactive effect

**Answer: A**

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35. Which of the following are the indicators of pollution?

- A. lichen

B. fungi

C. algae

D. none of these

**Answer: A**



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**36.** Ultraviolet radiations from sunlight causes a reaction that produces:

A. fluorides

B. carbon monoxide

C. sulphur dioxide

D. ozone

**Answer: D**



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**37.** Which of the following metals causes harmful effects?

A. lead

B. cobalt

C. uranium

D. all of these

**Answer: D**



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**38.** Ozone is spread in the swimming pool because:



- A. it acts as disinfectant
- B. it absorbs UV radiations
- C. ozone is easily available from  $O_2$
- D. all of these

**Answer: A**

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**39.** Which of the following is the correct percentage of the two (out of the total of 4) greenhouse gases that contribute to the total global warming?

- A.  $N_2O$  6 % ,  $CO_2$  86 %
- B. methane 20 % ,  $N_2O$  18 %
- C.  $CFCs$  14 % , methane 20 %

D.  $CO_2$  40 % , CFCs 30 %

**Answer: C**



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40. Which one is being tried in india as biofuel substitute for fossil fuels?

A. Musa

B. Aegilops

C. Jatropha

D. Azadirichta

**Answer: C**



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41. A lake near a village suffered heavy mortality of fishes within a few days. Consider the following reasons for this?

(a) Lots of urea and phosphate fertilizers were used in the crops in the vicinity.

(b) The area was sprayed with DDT by an aircraft.

(c) The lake water turned green and stinky.

(d) Phytoplankton population in the lake declined initially thereby greatly reducing photosynthesis. Which two of the above were the main causes of fish mortality in the lake?

A. A, C

B. A, B

C. B, C

D. C, D

**Answer: B**



42. Modern detergents contain enzyme preparations of

- A. thermoacidophiles
- B. thermophiles
- C. acidophiles
- D. alkaliphiles

**Answer: D**

43. According to Central Pollution Control board (CPCB). Which particulate size in diameter (in micrometers) of the air pollutants is responsible for greatest harm to human health?

A.  $1 \cdot 0$  or less

B.  $5 \cdot 2 - 2 \cdot 5$

C.  $2 \cdot 5$  or less

D.  $1 \cdot 5$  or less

**Answer: C**



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**44.** Gaseous pollutants can be controlled by:

A. arrestors

B. electrostatic precipitators

C. pyrolysis

D. adsorption

**Answer: D**

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**45.** It is estimated that out of the total global warming the relative contribution of  $CO_2$ ,  $CH_4$ , CFCs and  $N_2O$  are found respectively as:

- A. 60 % , 20 % , 14 % and 6 %
- B. 6 % , 14 % , 20 % and 60 %
- C. 20 % , 60 % , 14 % and 6 %
- D. 14 % , 6 % , 20 % and 60 %

**Answer: A**

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46. Mercury pollution causes

- A. black foot disease
- B. itai-itai disease
- C. blue baby syndrome
- D. minamata disease

**Answer: D**



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47. Which of the following element is responsible for minamata disease?

- A. Hg
- B. Pb

C. Cd

D. Fe

**Answer: A**

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**48.** Which of the following is not a green house gas?

A.  $N_2O$

B. CFC

C. Oz

D.  $SO_2$

**Answer: D**

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49. Increase in the BOD of water reservoir is due to

- A. increase in the dissolved  $O_2$  conc.
- B. decrease in the dissolved  $O_2$  conc.
- C. maintenance of dissolved  $O_2$  conc. at the same level
- D. no effect on dissolved  $O_2$  conc.

**Answer: B**



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50. Freon gas causing stratospheric  $O_3$  depletion is mainly released from :

- A. refrigerator
- B. automobile

C. thermal power plant

D. steel industry

**Answer: A**

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51. The Government of India has passed the environment (Protection) Act in the year

A. 1971

B. 1974

C. 1981

D. 1986

**Answer: D**

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52. Methanogens, growing anaerobically on cellulosic material produce

- A. methane
- B. methane and carbondioxide
- C. methane and hydrogen
- D. methane, carbondioxide and hydrogen

**Answer: A**

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53. Biomagnification of DDT in an aquatic food chain starting from water having a concentration of 0.003 ppb may go, in fish eating birds, upto:

A. 2 ppm

B. 25ppm

C. 50 ppm

D. 100 ppm

**Answer: B**



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**54.** Photochemical smog is caused by a light mediated reaction between :

A.  $NO_2$  and unsaturated hydrocarbons

B.  $NO_2$  and  $O_3$

C.  $SO_2$  and unburnt hydrocarbons

D.  $SO_2$  and  $O_3$

**Answer: A**



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**55. Which element is the cause of itai disease**

A. Hg

B. Pb

C. Cd

D. As

**Answer: C**



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**56. The intensity levels of whispering noise is:**

- A. 10-15dB
- B. 20-40dB
- C. 45-50 dB
- D. 50-55 dB

**Answer: B**

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57.  $SO_2$  pollution is indicated by

- A. Desmodium' (grasses)
- B. Sphagnum (mosses)
- C. Usnea (lichens)
- D. Cucurbita (Climbers)

**Answer: C**



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**58.** Which one of the following is not a renewable, exhaustible natural resource?

- A. water
- B. wildlife
- C. soil fertility
- D. minerals

**Answer: D**



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59. Which one of the following is not an air pollutant?

A. pollen from plants

B. phosphates

C. carbon monoxide

D. hydrocarbons

**Answer: B**



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60. Which one of the following is a most efficient device to eliminate particular matters from the industrial emissions?

A. cyclone separators

B. trajectory separators



C. pyrolysis

D. electrostatic precipitator

**Answer: D**

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**61.** Which of the following statements are correct ?

- (i) Benzene hexachloride (BHC) is a non-biodegradable pollutant.
- (ii) Anthropogenic air pollutants are natural in origin.
- (iii) Carbon monoxide is a primary air pollutant.
- (iv) Sulphur dioxide causes brown air effect during traffic congestion in cities.

A. A and C only

B. A and B only

C. B and C only

D. B and D only

**Answer: A**

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**62.** Match the following and choose the correct combination from the options given below :

Column I

(Green House Gases)

A.  $\text{CO}_2$

B.  $\text{CH}_4$

C.  $\text{N}_2\text{O}$

D. CFC + HFC

Column II

(Conc. in 200 A.D.)

1. 282 ppt

2. 316 ppb

3. 368 ppm

4. 1750 ppb

A. A-3, B-4, C-2, D-1

B. A-4, B-3, C-2, D-1

C. A-2, B-3, C-4, D-1

D. A-1, B-4, C-2, D-3

**Answer: A**

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**63.** Which of the following is not a green house gas?

A. methane

B. oxygen

C. water vapour

D. carbon monoxide

**Answer: B**

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**64.** One of the following acts as secondary pollutants

A.  $Br_2$

B.  $Cl_2$

C.  $NO_2$

D.  $HNO_3$

**Answer: D**



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65. A sewage treatment process, in which a part of decomposer bacteria present in the wastes is recycled into then starting of the process is called

A. cyclic treatment

B. activated sludge treatment

C. primary treatment

D. tertiary treatment

**Answer: B**



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**66.** If global warming continues, the organism which may face more severe threat is:

A. cow

B. banana

C. snow leopard

D. dolphin

**Answer: C**



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67. An inexhaustible non-conventional universal source of energy is

- A. wind energy
- B. solar energy
- C. hydrothermal energy
- D. tidal energy

**Answer: B**

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68. Carbon dioxide is called greenhouse gas because it is :

- A. used in green-house to increase plant growth
- B. transparent to heat but traps sunlight

C. transparent to sunlight but traps heat

D. transparent to both sunlight and heat

**Answer: C**

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**69.** Minamata disease was caused due to the consumption of

A. fish with mercury

B. mustard oil with argemone oil

C. fish with DDT

D. none of these

**Answer: A**

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70. The abbreviation B.O.D. stands for

- A. Biological oxygen dificit
- B. Biological oxygen demand
- C. Biochemical oxygen dificit
- D. Biological oxygen derivative

**Answer: B**



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71. Green house effect mainly due to-

- A.  $SO_2$
- B.  $CO_2$
- C. CO



D.  $O_2$

**Answer: B**

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72. Maximum ozone depletion is caused by

A.  $CO_2$

B.  $SO_2$

C. CFC

D.  $CH_4$

**Answer: C**

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73. Montreal protocol aims at:

- A. Control of  $CO_2$  emission
- B. Reduction in ozone depleting substances
- C. Biodiversity conservation
- D. Control of water pollution

**Answer: B**



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74. Steps taken by government of India in controlling air pollution are

- A. use of non-polluting Compressed Natural Gas (CNG) only as fuel by all buses and trucks

- B. Compulsory mixing of 20% ethyl alcohol with petrol and 20% biodiesel with diesel.
- C. Compulsory PUC (Pollution Under Control) certification of petrol driven vehicles which tests for carbon monoxide by hydrocarbons
- D. Permission to use only pur diesel

**Answer: C**



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**75.** DDT residues are rapidly passed through food chain causing biomagnification because DDT is

- A. water soluble
- B. lipid soluble

C. moderately toxic

D. non-toxic to aquatic animals

**Answer: B**

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**76.** Global agreement in specific control strategies to reduce the release of ozone depleting substances was adopted by:

A. The Vienna Convention

B. Rio de Janeiro conference

C. The Montreal Protocol

D. The Koyoto Protocol

**Answer: C**

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77. The green scum seen in the freshwater bodies is

- A. blue green algae
- B. red algae
- C. green algae
- D. both (a) and (B)

**Answer: D**



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78. The loudness of a sound that a person can withstand without discomfort is about

- A. 150db.

B. 215db.

C. 30db.

D. 80db.

**Answer: D**



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**79.** The major source of noise pollution, world wide is due to:

A. office equipment

B. transport system

C. sugar, textile and paper industries

D. oil refineries and thermal power plants.

**Answer: B**

**80.** Match correctly the following and choose the correct option.

Environment Protection Act	A, 1974
Air prevention and control of Pollution Act	B. 1987
Water Act	C. 1986
Amendment of Air Act to include noise	D. 1981

The correct match is

- A. i-C, ii-D, iii-A, iv-B
- B. i-A, ii-C, iii-B, iv-D
- C. i-D, ii-A, iii-B, iv-C
- D. i-C, ii-D, iii-B, iv-A

**Answer: A**

81. Catalytic converters are fitted into automobiles to reduce emission of harmful gases. Catalytic convertes change unburnt hydrocarbons into

- A. carbon dioxide and water
- B. carbon monoxide
- C. methane
- D. carbon dioxide and methane

**Answer: A**

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82. Why is it necessary to remove sulphur from petroleum products ?



- A. To reduce the emission of sulphur dioxide in exhaust fumes
- B. To increase efficiency of automobiles engines
- C. To use sulphur removed from petroleum for commercial purposes
- D. To increase the life span of engine silencers

**Answer: A**



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**83.** Which one of the following impurities is easiest to remove from wastewater ?

- A. Bacteria
- B. Colloids
- C. Dissolved solids

D. Suspended solids

**Answer: D**

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**84.** Which one of the following diseases is not due to contamination of water ?

A. Hepatitis-B

B. Jaundice

C. Cholera

D. Typhoid

**Answer: A**

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85. Nuisance growth of aquatic plants and bloom-forming algae in natural waters is generally due to high concentrations of

- A. carbon
- B. sulphur
- C. calcium
- D. phosphorus

**Answer: D**

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86. Algal blooms impart a distinct colour to water due to

- A. their pigments
- B. excretion of coloured substances

- C. formation of coloured chemicals in water facilitated by physiological degradation of algae.
- D. absorption of light by algal cell wall.

**Answer: A**

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**87.** Match the items in column I and column II and choose the correct option.

Column I

UV

Biodegradable organic matter

DDT

Phosphates

Column II

(i) Biomagnification

(ii) Eutrophication

(iii) Snow blindness

(iv) BOD

The correct match is :

A. A ii, B i, C iv, D iii

B. A iii, B ii, C iv, D i

C. A iii, B iv, C i, D ii

D. A iii, B i, C iv, D i

**Answer: C**

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**88.** In the textbook you came across Three Mile Island and Chernobyl disasters associated with accidental leakage of radioactive wastes. In India we had Bhopal gas tragedy. It is associated with which of the following ?

A.  $CO_2$

B. Methyl Iso-Cyanate

C. CFC's

D. Methyl Cyanate

**Answer: B**



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**89.** The two gases making highest relative contribution to the greenhouse gases are:

A.  $CO_2$  and  $N_2O$

B.  $CO_2$  and  $CH_4$

C.  $CH_4$  and  $N_2O$

D. CFCs and  $N_2O$

**Answer: B**



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90. Select the correct statement from the following

- A. Activated sludge-sediment in settlement tanks of sewage treatment plant is a rich source of aerobic bacteria.
- B. Biogas is produced by the activity of aerobic bacteria on animal waste
- C. Methanobacterium is an aerobic bacterium found in rumen of cattle
- D. Biogas, commonly called gobar gas, is pure methane

**Answer: A**



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91. dB is a standard abbreviation used for the quantitative expression of :

- A. a certain pesticide
- B. the density of bacteria in a medium
- C. a particular pollutant
- D. the dominant Bacillus in a culture

**Answer: C**

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92. Stirred-tank bioreactors have been designed for

- A. availability of oxygen throughout the process
- B. addition of preservatives to the product



C. purification of the product

D. ensuring anaerobic conditions in the culture vessel

**Answer: A**

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**93.** When domestic sewage mixes with river water

A. small animals like rats will die after drinking river water

B. the increased microbial activity releases micronutrients  
such as iron

C. the increased microbial activity uses up dissolved oxygen

D. the river water is still suitable for drinking as impurities are  
only about 0 · 1 %

**Answer: C**



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**94.** Which of the following diseases is related to cadmium pollution?

A. Minamata

B. Pneumoconiosis

C. Anaemia

D. Itai itai

**Answer: D**



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95. Lichens are described as indicators of

- A. air pollution
- B. Water pollution
- C. soil pollution
- D. agriculture productivity

**Answer: A**



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96. The Air (Prevention and Control of Pollution). Act was amended in 1987 to include one of the following as pollutant

- A. water
- B. noise

C. dust

D. none of these

**Answer: B**



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**97.** One of the following is not a green house gas:

A.  $CO_2$

B.  $CH_4$

C. Ethane

D.  $N_2O$

**Answer: C**



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98.  $CO_2$  content of atmosphere has increased in the last 150 years from

- A. 200 ppm to 300 ppm
- B. 120 ppm to 280 ppm
- C. 280 ppm to 370 ppm
- D. 350 ppm to 450 ppm

**Answer: C**



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99. Eutrophication of often seen in:

- A. deserts
- B. fresh water lakes

C. oceans

D. mountains

**Answer: B**

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100. Which one of the following pairs of gases are the major cause of "Greenhouse effect" ?

A.  $CO_2$  and  $O_3$

B.  $CO_2$  and  $CO$

C. CFCs and  $SO_2$

D.  $CO_2$  and  $N_2O$

**Answer: D**

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**101.** Secondary sewage treatment is mainly a

- A. physical process
- B. mechanical process
- C. chemical process
- D. biological process

**Answer: D**



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**102.** Which of the following is mainly produced by the activity of anaerobic bacteria on sewage

- A. laughing gas

B. propene

C. mustard gas

D. marsh gas

**Answer: D**



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**103.** Organisms called Methanogens are most abundant in a

A. sulphur rock

B. cattle yard

C. polluted stream

D. hot spring

**Answer: B**



**104.** Which one of the following statements is incorrect regarding Bhopal gas tragedy ?

- A. methyl isocyanate gas leakage took place
- B. thousands of human beings died
- C. radioactive fall out engulfed Bhopal
- D. it took place in the night of December 2/3, 1984

**Answer: C**

**105.** "Good ozone" is found in the

- A. mesosphere

B. troposphere

C. stratosphere

D. ionosphere

**Answer: C**



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**106.** In an area where DDT had been used extensively, the population of birds declined significantly because:

A. birds stopped laying eggs

B. earthworms in the area got eradicated

C. cobras were feeding exclusively on birds

D. many of the birds laid, did not hatch

**Answer: D**



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**107.** Which one of the following is a wrong statement?

- A. Most of the forests have been lost in tropical areas.
- B. Ozone in upper part of atmosphere is harmful to animals
- C. Greenhouse effect is a natural phenomenon
- D. Eutrophication is a natural phenomenon in freshwater bodies.

**Answer: B**



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**108.** Measuring Biochemical Oxygen Demand (BOD) is a method used for:

- A. estimating the amount of organic matter in sewage water.
- B. working out the efficiency of oil driven automobile engines.
- C. measuring the activity of *Saccharomyces cerevisiae* in producing curd on a commercial scale.
- D. working out the efficiency of R.B.Cs. About their capacity to carry oxygen.

**Answer: A**



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**109.** The domestic sewage in large cities

- A. has a high BOD as it contains both aerobic and anaerobic bacteria
- B. is processed by aerobic and then anaerobic bacteria in the secondary treatment in Sewage Treatment Plants (STPs)
- C. when treated in STPs does not really require the aeration step as the sewage contains adequate oxygen.
- D. has very high amount of suspended solid and dissolved salts.

**Answer: B**

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**110.** In gobar gas, the maximum amounts is that of

Or

Biogas produced through anaerobic fermentation of organic material is primarily

- A. butane
- B. methane
- C. propane
- D. carbon dioxide

**Answer: B**

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**111.** Biomagnification of DDT in an aquatic food chain starting from water having a concentration of 0.003 ppb may go, in fish eating birds, upto:

- A. 0.5 ppm

B. 5 · 0 ppm

C. 15 · 0 ppm

D. 25 · 0 ppm

**Answer: D**



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**112.** In domestic sewage, impurities in the form of suspended solids, colloidal materials and dissolved materials, are about

A. 0.1 %

B. 2 · 1 %

C. 5 · 0 %

D. 10 · 0 %

**Answer: A**



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**113.** Environment Protection Act, to protect and improve the quality of our environmental air, water and soil was passed in the year

A. 1971

B. 1974

C. 1981

D. 1986

**Answer: D**



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114. Which greenhouse gas contributes 20% of global warming

A. Methane

B. CFCs

C.  $CO_2$

D.  $N_2O$

**Answer: A**



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115. If a water body is contaminated with toxicant , its biomagnification will be more marked in

A. water

B. planktons

C. small fishes

D. birds

**Answer: D**

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**116.** The Air Prevention and Control of Pollution Act came into force in:

A. 1981

B. 1985

C. 1990

D. 1975

**Answer: A**

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**117.** Kyoto Protocol was endorsed at:

- A. COP-5
- B. COP-6
- C. COP-4
- D. COP-3

**Answer: D**

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**118.** Green muffler play a important role against

- A. noise pollution
- B. radioactive pollution

C. soil pollution

D. air pollution

**Answer: A**

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**119.** A location with luxuriant growth of lichens on the trees indicates that the

A. trees are very healthy

B. trees are heavily infested

C. location is highly polluted

D. location is not polluted

**Answer: D**

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120. The zone of atmosphere in which the ozone layer is present is called :

- A. Ionosphere
- B. Mesosphere
- C. stratosphere
- D. Troposphere

**Answer: C**

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121. What gases are produced in anaerobic sludge digesters

- A. Methane and  $CO_2$  only

B. Methane, Hydrogen Sulphide and  $CO_2$

C. Methane, Hydrogen Sulphide and  $O_2$

D. Hydrogen Sulphide and  $CO_2$

**Answer: B**

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**122.** A scrubber in the exhaust of a chemical industrial plant removes:

A. gases like sulphur dioxide

B. particulate matter of the size 5 micrometer or above

C. gases like ozone and methane

D. particulate matter of the size 2.5 micrometer or less

**Answer: A**



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**123.** Which one is matched correctly?

- A. Arsenic-Black foot disease
- B. Fluoride-Itai-itai
- C. Mercury-Skeletal fluorosis
- D. Cadmium-Minamata disease

**Answer: A**



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124. Eutrophication of water bodies leading to killing of fishes is mainly due to non-availability of:

- A. Oxygen
- B. Food
- C. Light
- D. Essential minerals

**Answer: A**

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125. Acid rain is caused by increase in the atmospheric concentration of :

- A.  $O_3$  and dust



B.  $SO_2$  and  $NO_2$

C.  $SO_3$  and CO

D.  $CO_2$  and CO

**Answer: B**



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**126.** Increase in concentration of the toxicant at successive trophic levels is known as:

A. Biogeochemical cycling

B. Biomagnification

C. Biodeterioration

D. Biotransformation

**Answer: B**

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127. Which the following are most suitable indicators of  $SO_2$  pollution in the environment ?

- A. Fungi
- B. Lichens
- C. Conifers
- D. Algae

**Answer: B**

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**128.** The UN conference of Parties on climate change in the year 2012 was held at:

- A. Warsaw
- B. Durban
- C. Doha
- D. Lima

**Answer: C**

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**129.** The domestic sewage in large cities

- A. has a high BOD as it contains both aerobic and anaerobic bacteria

- B. is processed by aerobic and then anaerobic bacteria in the secondary treatment in Sewage Treatment Plants (STPs)
- C. when treated in STPs does not really require the aeration step as the sewage contains adequate oxygen.
- D. has very high amount of suspended solid and dissolved salts.

**Answer: B**



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**130.** A river with an inflow of domestic sewage rich in organic waste may result in

- A. Increased population of aquatic food web organisms

- B. An increased production of fish due to biodegradable nutrients
- C. Death of fish due to lack of oxygen
- D. Drying of the river very soon due to algal bloom

**Answer: C**

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**131.** Depletion of which gas in the atmosphere can lead to an increased incidence of skin cancers

- A. Ozone
- B. Ammonia
- C. Methane
- D. Nitrous oxide

**Answer: A**



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**132.** Joint Forest Management Concept was introduced in India during

- A. 1970s
- B. 1980s
- C. 1990s
- D. 1960s

**Answer: B**



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**133.** Biochemical Oxygen Demand (BOD) may not be a good index for pollution for water bodies receiving effluents from

- A. domestic sewage
- B. dairy industry
- C. petroleum industry
- D. sugar industry

**Answer: C**

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**134.** A lake which is rich in organic waste may result in

- A. Increased population of aquatic organisms due to minerals
- B. drying of the lake due to algal bloom

C. increased fish population due to lots of nutrients

D. mortality of fish due to lack of oxygen

**Answer: D**

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**135.** The highest DDT concentration in aquatic food chain shall occur in:

A. Phytoplankton

B. seagull

C. crab

D. eel

**Answer: B**

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**136.** Which of the following in sewage treatment removes suspended solids?

- A. Secondary treatment
- B. Primary treatment
- C. Sludge treatment
- D. tertiary treatment

**Answer: B**



**137.** Which one of the following statements is not valid for aerosols?

- A. They alter rainfall and monsoon patterns
- B. They cause increased agricultural productivity
- C. They have negative impact on agricultural land
- D. They are harmful to human health

**Answer: B**

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**138.** Match the items given in column I with those in column II and select the correct option given below.

Column I

Column II

- |                      |                           |
|----------------------|---------------------------|
| A. Eutrophication    | (i) UV-B radiation        |
| B. Sanitary landfill | (ii) Deforestation        |
| C. Snow blindness    | (iii) Nutrient enrichment |
| D. Jhum cultivation  | iv Waste disposal         |

- A. 

<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
( <i>ii</i> )	( <i>i</i> )	( <i>iii</i> )	( <i>iv</i> )

- B.  $A$   $B$   $C$   $D$   
(i) (iii) (iv) (ii)
- C.  $A$   $B$   $C$   $D$   
(iii) (iv) (i) (ii)
- D.  $A$   $B$   $C$   $D$   
(i) (ii) (iv) (iii)

**Answer: C**



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**139.** In stratosphere , which of the following element acts as a catalyst in degradation of ozone an release of molecular oxygen ?

- A. Carbon
- B. Cl
- C. Fe
- D. Oxygen

**Answer: B**



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**140.** Which of the following is a secondary pollutant ?

A. CO

B.  $CO_2$

C.  $SO_2$

D.  $O_3$

**Answer: D**



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**141.** World Ozone Day is celebrated on

A. 5th June

B. 21st April

C. 16th September

D. 22nd April

**Answer: C**



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## Practice Questions Assertion Reason Type Questions

1. Assertion: Radioactive pollution may effect the future generations

Reason: It causes mutations, and mutant genes may effect the progeny

- A. If both A and R are true and R is the correct explanation of A.
- B. If both A and R are true but R is not the correct explanation of A.
- C. If A is true but R is false.
- D. If both A and R are false.

**Answer:**



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2. Assertion: Who has recommended a noise of less than 75 decibels for industries

Reason: Higher noise reduces industrial production

- A. If both A and R are true and R is the correct explanation of A.
- B. If both A and R are true but R is not the correct explanation of A.
- C. If A is true but R is false.
- D. If both A and R are false.

**Answer:**

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**3. Assertion:** City noise is sufficient to deafen people

**Reason:** Noise level above 80 dB gradually leads to permanent loss of hearing ability

- A. If both A and R are true and R is the correct explanation of A.
- B. If both A and R are true but R is not the correct explanation of A.
- C. If A is true but R is false.
- D. If both A and R are false.

**Answer:**

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**4. Assertion:** Water-logged soil is physiologically dry

**Reason :** Water dislodges air from the soil so that roots cannot breathe



- A. If both A and R are true and R is the correct explanation of A.
- B. If both A and R are true but R is not the correct explanation of A.
- C. If A is true but R is false.
- D. If both A and R are false.

**Answer: A**

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5. [A] : Population density of indicator organisms show degree of water pollution .

[R] : BOD is an index of organic waste in water .

- A. If both A and R are true and R is the correct explanation of A.
- B. If both A and R are true but R is not the correct explanation of A.
- C. If A is true but R is false.
- D. If both A and R are false.

**Answer:**



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6. Assertion: Agricultural output increased several times after introducing of DDT

Reason: DDT was the first insecticide used on a wide scale

- A. If both A and R are true and R is the correct explanation of A.
- B. If both A and R are true but R is not the correct explanation of A.
- C. If A is true but R is false.
- D. If both A and R are false.

**Answer:**

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7. Assertion (A) : Methane component of greenhouse gases contributing to global warming is about 20 per cent.

Reason (R) : Introduction of multi-point fuel injection engines in automobiles has decreased methane content in the exhausts.

- A. If both A and R are true and R is the correct explanation of A.
- B. If both A and R are true but R is not the correct explanation of A.
- C. If A is true but R is false.
- D. If both A and R are false.

**Answer:**

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