



# BIOLOGY

## BOOKS - PEARSON IIT JEE

### FOUNDATION

#### POLLUTION OF AIR AND WATER

**Master Your Test Solved Example**

1. What is the percentage of nitrogen in air?



**Watch Video Solution**

2. Which gases are responsible for acid rain?



[Watch Video Solution](#)

3. What are the major causes of global warming?



[Watch Video Solution](#)

4. Which toxic compound is produced when automobiles exhaust?



**Watch Video Solution**

5. Which toxic element or compound is released by vehicles?



**Watch Video Solution**

6. What do you mean by marble cancer?



**Watch Video Solution**

7. What are CFCs? How do they create pollution?



**Watch Video Solution**

8. Which radiation is absorbed by  $CO_2$ ?



**Watch Video Solution**

9. Which rays are harmful for us?



[Watch Video Solution](#)

10. Explain the differences between pure air and polluted air.



[Watch Video Solution](#)

11. List few serious hazards caused by lead.



[Watch Video Solution](#)

**12.** What do you understand by suspended particulate matter (SPM)?



**Watch Video Solution**

**13.** What is haze?



**Watch Video Solution**

**14.** What is global warming?



**Watch Video Solution**

**15.** Which fuel is pollution free?



**Watch Video Solution**

**16.** Write a short note on Van Mahotsav.



**Watch Video Solution**

**17.** State any two diseases caused by water pollution in humans.



**Watch Video Solution**

**18.** Which water pollution causes the most human health issues?



**Watch Video Solution**



**19.** What is the major source of fresh water in the city/town/village where you live?



**Watch Video Solution**

**20.** Write down the activities which may be polluting the water source.



**Watch Video Solution**

**21.** Why is water essential for life?



**Watch Video Solution**

**22. What do you understand by oil spill?**



**Watch Video Solution**

**23. What are water pollutants?**



**Watch Video Solution**

**24.** What are the negative effects of water pollution on human health?



**Watch Video Solution**

**25.** Which country has most water pollution?



**Watch Video Solution**

**26.** Name a country where tap water is safest to drink.



Watch Video Solution

27. Mention two chemicals that can be added to water to kill the germs present in it.



Watch Video Solution

## Track Your Learning I

1. Carbon dioxide contributes towards acid rain. \_\_\_\_\_ .



[Watch Video Solution](#)

2. Lead compounds released by vehicles are only harmful to plants. \_\_\_\_\_.



[Watch Video Solution](#)

3. Forest fires are the major cause of air pollution in the world today. \_\_\_\_\_.



[Watch Video Solution](#)

4. Thermal power plants are one of the causes of air pollution. \_\_\_\_\_.



[Watch Video Solution](#)

5. Which of these is not an air pollutant?

A. Carbon monoxide

B. Sulphur dioxide

C. Lead

D. Oxygen

**Answer: D**



**Watch Video Solution**

**6. Which of these is a clean source of energy?**

A. Petrol

B. Coal

C. Wind

D. Wood

**Answer: C**



Watch Video Solution

7. Which of these can help reduce air pollution?

- A. Air conditioners
- B. Electrostatic precipitators
- C. Thermal power plants
- D. Grass fires

**Answer: B**





8. The \_\_\_\_\_ precipitator is a device that removes minute particles present in smoke by applying electricity through it and attracting the particles towards itself.

A. Electric

B. Chemical

C. Air

D. Solar

**Answer: A**



**Watch Video Solution**

9. Acid rain is caused when sulphur dioxide mixes with rain water to form \_\_\_\_ acid.

A. Sulphuric

B. Nitric

C. Carbonic

D. Hydrochloric

**Answer: A**



**Watch Video Solution**

**10. Write full form of CFC.**

- A. Chlorofluorocarbon
- B. Chloricfluorocarbon
- C. Carbonfluorocarbon
- D. None of these

**Answer: A**



Watch Video Solution

11. A harmful substance present in land, water or air that pollutes is called \_\_\_\_\_.

A. Aerosol

B. Pollutants

C. Bioaerosol

D. Particulates

**Answer: B**



12. Leaded petrol used to be the primary source of air-borne lead emission. This problem has been overcome by

- A. Unleaded
- B. Leaded
- C. Ionized
- D. Both (b) and (c)

**Answer: A**



Watch Video Solution

13. Carbon monoxide combines with haemoglobin of form:

- A. Oxyhaemoglobin
- B. Carboxyhaemoglobin
- C. Chlorohaemoglobin
- D. None of these

**Answer: B**



Watch Video Solution

14. Which of the following is not a greenhouse gas?

- A. Carbon dioxide
- B. Sulphur dioxide
- C. Methane
- D. Nitrogen

**Answer: D**



**Watch Video Solution**

## Track Your Learning II

1. The term water pollution can be defined in several ways. Which of the following statements does not give the correct definition?

A. The addition of undesirable substances to water bodies.

B. The removal of desirable substances from water bodies.



C. A change in pressure of the water bodies.

D. A change in temperature of the water bodies.

**Answer: B**



**Watch Video Solution**

2. Water pollution is best assessed by determining

A. DO

B. BOD and turbidity.

C. DO and acidity

D. hardness and alkalinity.

**Answer: B**



**Watch Video Solution**

**3.** The main reason for the abundant coliform bacteria in the water of river Ganga is :

A. disposal of unburnt corpses into water.

B. discharge of effluents from electroplating industries.

C. washing of clothes.

D. immersion of ashes.

**Answer: A**



**Watch Video Solution**

4. The pH of water sample collected from a river was found to be acidic in the range of 3.5-4.5, on the banks of the river were several factories that were discharging effluents into the river. The effluents of which one of the following factories is the most cause for lowering the pH of river water ?

A. Soap and detergent factory.

B. Lead battery manufacturing factory.

C. Plastic cup manufacturing factory.

D. Alcohol distillery

**Answer: B**



**Watch Video Solution**

5. The pH range most conducive for life of freshwater plants and animals is

A. 6.5 - 7.5

B. 2.0 - 3.5

C. 3.5 - 5.0

D. 9.0 - 10.5

**Answer: A**



**Watch Video Solution**

**6. What is the full form of GAP?**

A. Governmental Agency for Pollution Control

B. Gross Assimilation by Photosynthesis

C. Ganga Action Plan

D. Governmental Agency for Animal  
Protection

**Answer: C**



**Watch Video Solution**

**7. Ganga Action Plan was started in**

A. 1973

B. 1985

C. 1971

D. 1983

**Answer: B**



**Watch Video Solution**

**8.** Largest amount of fresh water is found in

- A. ponds and lakes.
- B. rivers and streams.
- C. ice caps and glaciers.
- D. underground water.



**Answer: C**



**Watch Video Solution**

**9.** What amount of fresh water on earth is actually readily available to use?

A. 0.01

B. 0.02

C. 0.03

D. 0.7

**Answer: A**



**Watch Video Solution**

**10.** Crude oil transported from oil wells through the ocean sometimes results in \_\_\_\_\_ which cause water pollution.

- A. oil spill
- B. health hazards
- C. eutrophication
- D. coolant

**Answer: A**



**Watch Video Solution**

**11.** Microorganisms present in the polluted water use up the \_\_\_\_\_ present in it.

A. oxygen

B. carbon

C. nitrogen

D. nitric acid

**Answer: A**



**Watch Video Solution**

**12.** The use of water from water bodies as a \_\_\_\_\_ in industries makes the water hot, and deficient in oxygen.

A. coolant

B. pesticides

C. decomposers

D. Both (b) and (c)

**Answer: A**



**Watch Video Solution**

**13.** Which of these is not a process involved in the purification of water at a water treatment plant?

A. Eutrophication

B. Filtration

C. Sedimentation

D. Chlorination

**Answer: A**



**Watch Video Solution**

## **Hots Higher Order Thinking Skills**

**1. Look at the picture given below that shows a summer morning in a city.**

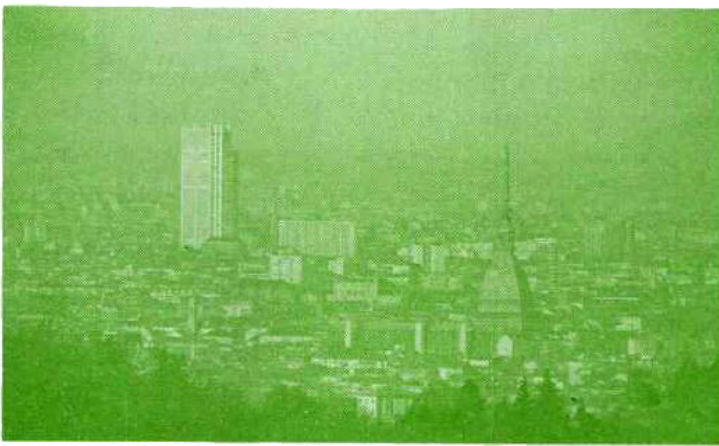


What is this phenomenon called?



[View Text Solution](#)

2. Look at the picture given below that shows a summer morning in a city.



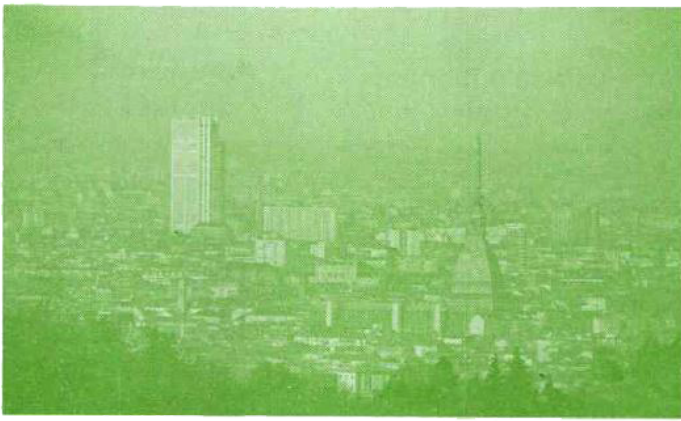
What kind of pollution is this a result of?



[View Text Solution](#)

**3.** Look at the picture given below that shows a summer morning in a city.



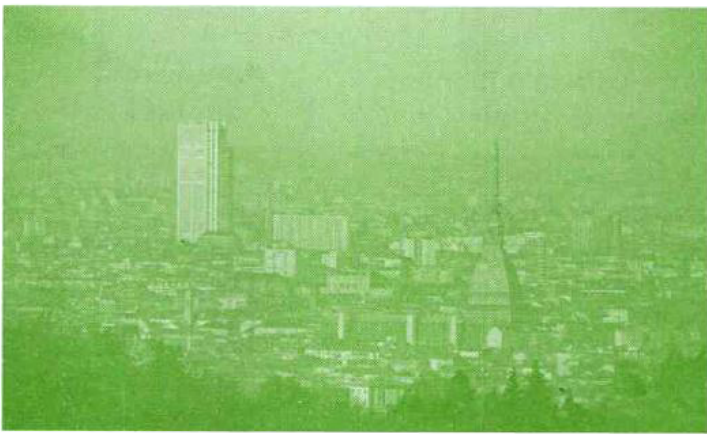


What kind of pollutants do you think are at play here and how they can affect us?



**View Text Solution**

**4.** Look at the picture given below that shows a summer morning in a city.



What is the most dangerous air pollutant?

 [View Text Solution](#)

5. Trapping of thermal radiation in our atmosphere by gases present in it, is called the greenhouse effect. In the recent years, a gradual increase in the heat trapped in the

atmosphere has resulted in global warming.

Do you think greenhouse effect itself is a harmful phenomenon? Give reasons for your answer.



[Watch Video Solution](#)

## Classroom Corner A Very Short Answer Type Questions Multiple Choice Questions

1. Which of these is not an effect of air pollution?

A. Acid rain

B. Eutrophication

C. Haze

D. Global warming

**Answer: B**



**Watch Video Solution**

2. Which of these gases when inhaled reduces the oxygen-carrying capacity of blood?

A. Carbon dioxide

B. Sulphur dioxide

C. CFC

D. Carbon monoxide

**Answer: C**



**Watch Video Solution**

**3.** Which one of these natural phenomena does NOT cause air pollution?

A. Volcanic eruption

B. Forest fire

C. Agricultural run-off

D. Dust storm

**Answer: D**



**Watch Video Solution**

4. A certain city does not provide unleaded petrol for the vehicles available in the region.

Which of these problems could you see in this city?

A. Cholera in children

B. Lower IQ in children

C. Death of aquatic plants and animals

D. Lower crop yield

**Answer: B**



**Watch Video Solution**

5. Highest percentage of air consists of

A. Oxygen

B. Carbon dioxide

C. Nitrogen

D. Argon

**Answer: C**



**Watch Video Solution**



6. The Taj Mahal is being affected by

A. Noise pollution

B. Air pollution

C. Water pollution

D. None of these

**Answer: B**



**Watch Video Solution**

7. Which is the most polluted river of India?

A. Yamuna

B. Cavery

C. Chenab

D. Ganga

**Answer: D**



**Watch Video Solution**

8. Air pollution causes

A. Global warming

B. Respiratory problems

C. Soil erosion

D. None of these

**Answer: B**



**Watch Video Solution**

9. Green house gas is \_\_\_\_\_.

A. Nitrogen

B. Oxygen

C. Methane

D. Carbon dioxide

**Answer: D**



**Watch Video Solution**

10. What is the percentage of nitrogen in air?

A. 0.21

B. 0.78

C. 0.12

D. 0.87

**Answer: B**



**Watch Video Solution**

**11. What causes pollution?**

A. Human activities

B. Trees

C. Both of these

D. None of these

**Answer: B**



**Watch Video Solution**

12. CNG is a \_\_\_\_\_ .

A. Polluted fuel

B. Clean fuel

C. Harmful fuel

D. None

**Answer: A**



**Watch Video Solution**

13. Pollution of water is responsible for \_\_\_\_\_

.

A. Oil refineries

B. Paper of these factories

C. Sugar mills

D. All

**Answer: D**



**Watch Video Solution**



14. Chlorofluorocarbon is used in \_\_\_\_\_.

- A. Refrigerators
- B. Air conditioners
- C. Perfumes
- D. All of these

**Answer: D**



**Watch Video Solution**

**Classroom Corner A Very Short Answer Type  
Questions Comprehension Based Questions**

1. Water pollution is defined as the undesirable change in the physical, chemical, or biological properties of water due to addition of pollutants that make water unfit for human consumption. Industrial waste containing high amount of acids, alkalis and heavy metals cause an adverse effect on the marine life. Based on the above information think of the answers to the following questions.

What are the factors responsible for pollution of the river.



[Watch Video Solution](#)

2. Water pollution is defined as the undesirable change in the physical, chemical, or biological properties of water due to addition of pollutants that make water unfit for human consumption. Industrial waste containing high amount of acids, alkalis and heavy metals cause an adverse effect on the

marine life. Based on the above information think of the answers to the following questions.

What steps can be taken to restore the river Ganga to its past glory?



**Watch Video Solution**

3. How would the disposal of garbage, etc. affect the living organisms in the river?



**Watch Video Solution**

4. Water pollution is defined as the undesirable change in the physical, chemical, or biological properties of water due to addition of pollutants that make water unfit for human consumption. Industrial waste containing high amount of acids, alkalis and heavy metals cause an adverse effect on the marine life. Based on the above information think of the answers to the following questions.

Who started Ganga Action Plan?



**Watch Video Solution**

5. National Mission for Clean Ganga (NMCG) was registered as a society on 12th August 2011. It acted as implementation arm of National Ganga River Basin Authority (NGRBA) which was constituted under the provisions of the Environment Protection Act, 1986. The objectives of NMCG is to accomplish the mandate of National Ganga River Basin Authority (NGRBA):

- To ensure effective abatement of pollution and rejuvenation of the river Ganga by

adopting a river basin approach to promote inter-sectoral coordination for comprehensive planning and management.

- To maintain minimum ecological flows in the river Ganga with the aim of ensuring water quality and environmentally sustainable development.

Why there was a need of launching NMCG?



[View Text Solution](#)

**6. National Mission for Clean Ganga (NMCG)** was registered as a society on 12th August 2011. It acted as implementation arm of National Ganga River Basin Authority (NGRBA) which was constituted under the provisions of the Environment Protection Act, 1986. The objectives of NMCG is to accomplish the mandate of National Ganga River Basin Authority (NGRBA):

- To ensure effective abatement of pollution and rejuvenation of the river Ganga by adopting a river basin approach to promote



inter-sectoral coordination for comprehensive planning and management.

- To maintain minimum ecological flows in the river Ganga with the aim of ensuring water quality and environmentally sustainable development.

Under which act NMCG was registered?



[View Text Solution](#)

7. National Mission for Clean Ganga (NMCG) was registered as a society on 12th August

2011. It acted as implementation arm of National Ganga River Basin Authority (NGRBA) which was constituted under the provisions of the Environment Protection Act, 1986. The objectives of NMCG is to accomplish the mandate of National Ganga River Basin Authority (NGRBA):

- To ensure effective abatement of pollution and rejuvenation of the river Ganga by adopting a river basin approach to promote inter-sectoral coordination for comprehensive planning and management.
- To maintain minimum ecological flows in the

river Ganga with the aim of ensuring water quality and environmentally sustainable development.

What is the major source of water pollution in industrialized countries?



[View Text Solution](#)

**8. National Mission for Clean Ganga (NMCG)** was registered as a society on 12th August 2011. It acted as implementation arm of National Ganga River Basin Authority (NGRBA)

which was constituted under the provisions of the Environment Protection Act, 1986. The objectives of NMCB is to accomplish the mandate of National Ganga River Basin Authority (NGRBA):

- To ensure effective abatement of pollution and rejuvenation of the river Ganga by adopting a river basin approach to promote inter-sectoral coordination for comprehensive planning and management.
- To maintain minimum ecological flows in the river Ganga with the aim of ensuring water quality and environmentally sustainable

development.

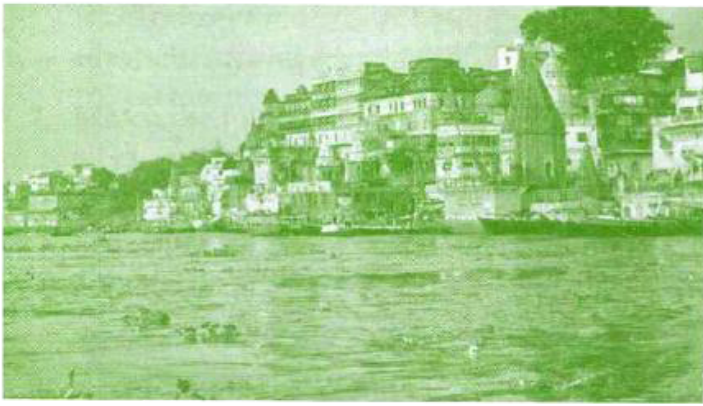
How water pollution is influencing the environment?



[View Text Solution](#)

9. Kavita and her family went to Varanasi to visit the famous ghats of Varanasi. She was amused to see the beauty of the city, extravagant temples and thousands of tourists, people of all ages were there to experience the scenic and religious sentiments

of the place. She also observed huge amount of temple waste got dumped into river and nearly all other kind of biodegradable as well as non-biodegradable wastes is being dumped in the Ganga river. During festive seasons, the city has to accommodate large populations coming from all over the places to visit the ghats. Continuous human activities such as bathing, washing clothes, the bathing of animals, and dumping of various harmful industrial waste put big stress on river quality.



Read the complete passage and try to answer the following questions

State the major sources of water pollution in this city.



[View Text Solution](#)

**10.** Kavita and her family went to Varanasi to visit the famous ghats of Varanasi. She was amused to see the beauty of the city, extravagant temples and thousands of tourists, people of all ages were there to experience the scenic and religious sentiments of the place. She also observed huge amount of temple waste got dumped into river and nearly all other kind of biodegradable as well as non-biodegradable wastes is being dumped in the Ganga river. During festive seasons, the city has to accommodate large populations



coming from all over the places to visit the ghats. Continuous human activities such as bathing, washing clothes, the bathing of animals, and dumping of various harmful industrial waste put big stress on river quality.



Read the complete passage and try to answer the following questions

What are the most important initiatives should be taken to clean the Ganga?



[View Text Solution](#)

**11.** Kavita and her family went to Varanasi to visit the famous ghats of Varanasi. She was amused to see the beauty of the city, extravagant temples and thousands of tourists, people of all ages were there to experience the scenic and religious sentiments of the place. She also observed huge amount of temple waste got dumped into river and nearly all other kind of biodegradable as well as non-biodegradable wastes is being dumped

in the Ganga river. During festive seasons, the city has to accommodate large populations coming from all over the places to visit the ghats. Continuous human activities such as bathing, washing clothes, the bathing of animals, and dumping of various harmful industrial waste put big stress on river quality.



Read the complete passage and try to answer

the following questions

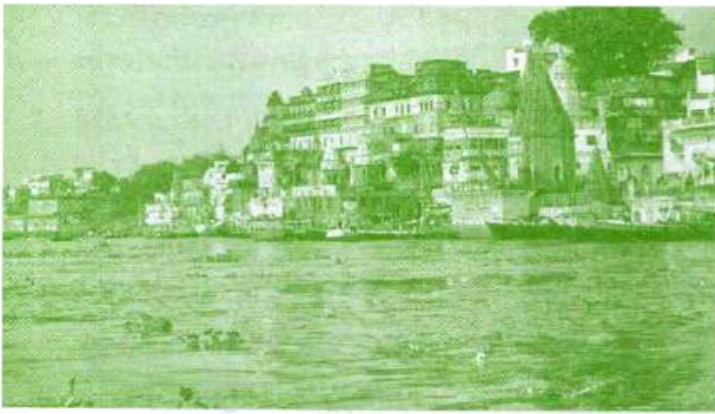
Name two water-borne diseases.



[View Text Solution](#)

**12.** Kavita and her family went to Varanasi to visit the famous ghats of Varanasi. She was amused to see the beauty of the city, extravagant temples and thousands of tourists, people of all ages were there to experience the scenic and religious sentiments of the place. She also observed huge amount

of temple waste got dumped into river and nearly all other kind of biodegradable as well as non-biodegradable wastes is being dumped in the Ganga river. During festive seasons, the city has to accommodate large populations coming from all over the places to visit the ghats. Continuous human activities such as bathing, washing clothes, the bathing of animals, and dumping of various harmful industrial waste put big stress on river quality.



Read the complete passage and try to answer the following questions

Mention two human health side-effects caused due to prolonged exposure of polluted water.

 [View Text Solution](#)

**Classroom Corner A Very Short Answer Type  
Questions Subjective Type Questions**

1. Why is air pollution from vehicular emission considered more harmful than that from other sources?



**Watch Video Solution**

2. Explain any two water purification methods which are used to clean water at home.



**Watch Video Solution**

**3. How can water pollution be controlled?**



**Watch Video Solution**

**4. Suggest measures to control air pollution.**



**Watch Video Solution**

**5. POTABLE WATER**



**Watch Video Solution**



6. What are the 5 major air pollutants?



[Watch Video Solution](#)

7. What do you understand by ozone depletion?



[Watch Video Solution](#)

8. Name the common air pollutant which causes depletion of ozone layer.



[Watch Video Solution](#)

9. What are the effects of ozone-layer depletion on human beings ?



[Watch Video Solution](#)

10. Mention two preventive measures to mitigate ozone depletion loss.



[Watch Video Solution](#)

**11.** Where is the ozone layer found? What is the importance of ozone layer?



**Watch Video Solution**

**12.** State two health effects of lead.



**Watch Video Solution**

**13.** What are the negative effects of water pollution on human health?





[Watch Video Solution](#)

**14.** Clear, transparent water is always fit for drinking. Comment.



[Watch Video Solution](#)

**15.** State two health effects of lead.



[Watch Video Solution](#)

**16.** Give any two effects of carbon monoxide poisoning.



**Watch Video Solution**

## **Classroom Corner A Very Short Answer Type Questions Assertion Reason Type Questions**

**1.** Assertion: There is an adverse effect of pollutants on Taj Mahal.

Reason: Discoloring of Taj Mahal is due to sulphur dioxide.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



**Watch Video Solution**

**2. Assertion:** Government of India made an act to prevent water pollution.

**Reason:** Water pollution degrades water quality.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of

assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



**View Text Solution**

**3. Assertion:** Polluted water can cause several communicable diseases.

**Reason:** The causative agents of



communicable diseases occur as pollutants in water.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: A**



**Watch Video Solution**

**4. Assertion:** Carbon dioxide controls the earth's heat balance.

**Reason:** Carbon dioxide has caused global warming.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

**Answer: B**



**Watch Video Solution**

**Classroom Corner B Short Answer Type Questions**

1. The phenomenon of marble cancer is due to



[Watch Video Solution](#)

2. Which of the following is/are the hazardous pollutant(s) present in automobile exhaust gases ?

(i)  $N_2$  (ii)  $CO$

(iii)  $CH_4$  (iv) Oxides of nitrogen



[Watch Video Solution](#)

3. Which gases are responsible for acid rain?



[Watch Video Solution](#)

4. Explain why carbon dioxide is known as green house gas?



[Watch Video Solution](#)

5. Discuss the percentage of air pollution is caused by cars.





[Watch Video Solution](#)

6. What is the greenhouse effect?



[Watch Video Solution](#)

7. Explain what all pollutants do cars emit?



[Watch Video Solution](#)

8. Explain how does Amazon fire start?





[Watch Video Solution](#)

9. What if the Gangotri glacier melts?

Comment.



[Watch Video Solution](#)

10. How much of the Amazon forest has already been destroyed? Give reason.



[Watch Video Solution](#)

**11.** Explain why the industrial smog worse in winter? Think and give reason.



**Watch Video Solution**

**12.** Explain why do you observe smog more in winter season? Comment.



**Watch Video Solution**

**13.** Discuss the harmful effects of PM?



**Watch Video Solution**



**14.** Discuss why is the size of particulate matter important to human health?



**Watch Video Solution**

**15.** What is a natural source of particulate matter?



**Watch Video Solution**

**16.** Discuss why are  $PM_{2.5}$  dangerous in nature?



**Watch Video Solution**

**17.** How does deforestation affect human health?



**Watch Video Solution**

**18.** Can Van Mahotsav replace the loss that we have already suffered by cutting trees? Discuss.



**Watch Video Solution**

**19.** Why does the increased level of nutrients in the water affect the survival of aquatic organisms?



**Watch Video Solution**

**20.** What are the different ways in which water gets contaminated?



**Watch Video Solution**

**21.** At an individual level, how can you help reduce air pollution?



**Watch Video Solution**

**22.** Write a short note on Van Mahotsav.





[Watch Video Solution](#)

**23.** What is eutrophication? Discuss how does it affect marine plants and animals?



[Watch Video Solution](#)

**24.** Why does the increased level of nutrients in the water affect the survival of aquatic organisms?



[Watch Video Solution](#)

25. Describe the 'Greenhouse Effect' in your own words.



[Watch Video Solution](#)

## Classroom Corner C Long Answer Type Questions

1. Why is air pollution considered a threat for the buildings made of marble? Explain.



[Watch Video Solution](#)

2. Do you think the different types of pollution air pollution, land pollution and water pollution-are interrelated? Explain your answer with the help of examples.



[Watch Video Solution](#)

3. We read in newspapers that burning of fuels is a major cause of global warming. Explain why.



[Watch Video Solution](#)

4. Draw a neat and labelled diagram of a water treatment plant. Explain the process in detail.



[View Text Solution](#)

5. Fill the table given below with information about how the given air pollutants affect living organisms.

Air pollutants	How it affects living organisms
Carbon monoxide	
Nitrogen dioxide	
Suspended particulate matter	
Lead	







Watch Video Solution

6. Complete the table given below by explaining how each of the given factors causes water pollution.

Factors	How it causes water pollution
Industrial effluents	
Agricultural run-off	
Thermal pollution	
Domestic wastewater	



Watch Video Solution

7. Explain circumstances leading to acid rain.

How does acid rain affect us?



**Watch Video Solution**

8. You are a member of the municipal body of your town.

Make a list of measures that would help your town to ensure the supply of clean water to all its residents.



**Watch Video Solution**

9. In the space given below, write any four uses of air and water on the Earth.

Uses of air	Uses of water
<ul style="list-style-type: none"><li>• _____</li></ul>	<ul style="list-style-type: none"><li>• _____</li></ul>
<ul style="list-style-type: none"><li>• _____</li></ul>	<ul style="list-style-type: none"><li>• _____</li></ul>
_____	_____



[Watch Video Solution](#)

10. Do you think thermal pollution is correctly considered a form of water pollution? Give reason for your answer.



[Watch Video Solution](#)

**11.** What are chlorofluorocarbons? How are they responsible for causing ozone hole in atmosphere? What will be the consequences of ozone hole?



[Watch Video Solution](#)

**12.** Briefly explain depletion of ozone layer and its effects.





[Watch Video Solution](#)

**13.** What is ozone and how does it affect any ecosystem?



[Watch Video Solution](#)

## Competition Corner

**1.** What is the effect of a thermal power plant on water bodies?

- A. The temperature of water increases.
- B. The temperature of water decreases.
- C. The salt level in the water increases.
- D. The salt level in the water decreases.

**Answer: A**



**Watch Video Solution**

**2. What do you understand by oil spill?**

A. Purification of crude oil

B. Transfer of crude oil in wells

C. Mining of crude oil near deserts

D. Leakage of crude oil in water bodies

**Answer: D**



**Watch Video Solution**

**3.** Which substance released from the refrigerator is responsible for the depletion of the ozone layer?

A. Sulphur dioxide

B. Aerosol

C. Argon

D. Nitrogen dioxide

**Answer: B**



**Watch Video Solution**

**4.** Name the gas which plays a major role in global warming



A. Helium

B. Oxygen

C. Hydrogen

D. Carbon dioxide

**Answer: D**



**Watch Video Solution**

**5. Disinfection of water removes**

A. To remove oils from water

B. To recycle the water

C. To heat the water

D. To kill germs

**Answer: D**



**Watch Video Solution**

**6. What is a common method of water purification at home?**

A. Precipitation

B. Chlorination

C. Distillation

D. Boiling

**Answer: D**



**Watch Video Solution**

7. Why is chlorine added to water?

A. To store water for long periods

B. To make water odourless

C. To make water colorless

D. To kill germs in water

**Answer: D**



**Watch Video Solution**

**8.** Explain the function of bar screens in a wastewater treatment plant.

A. To remove big impurities

B. To change the color of water

C. To change the odour of water

D. To remove suspended impurities

**Answer: A**



**Watch Video Solution**

**9.** Which one of these can be called potable water?

A. Grey-colored water

B. Pungent smelling water

C. Turbid and odorless water

D. Transparent and odorless water

**Answer: D**



**Watch Video Solution**

**10.** Which two gases should be present in potable water?

A. Oxygen and carbon dioxide

B. Oxygen and nitrogen dioxide

C. Carbon dioxide and sulphur dioxide

D. Sulphur dioxide and nitrogen dioxide

**Answer: A**



**Watch Video Solution**

**11.** What requirement should be fulfilled by potable water (water for drinking purpose)?

A. It is blue in color.

B. It contains added flavors.

C. It should be free of salts.

D. It should be free of germs and particles.

**Answer: D**



**Watch Video Solution**

**12.** Water that is fit for consumption is known as \_\_\_\_\_.

A. potable water

B. rain water



C. well water

D. sea water

**Answer: A**



**Watch Video Solution**

**13.** Which program did the Government of India start to clean river Ganga?

A. Ganga Recover Plan

B. Ganga Action Plan

C. Ganga Reuse Plan

D. Ganga Clean Plan

**Answer: B**



**Watch Video Solution**

**14.** Which of the following is a water borne disease?

A. Arthritis

B. Diabetes

C. Typhoid

D. Asthma

**Answer: C**



**Watch Video Solution**

**15.** How do thermal power plants affect aquatic life?

A. Increase aquatic population

B. Decrease water temperatures

C. Increase the carbon dioxide in water

D. Decrease the amount of oxygen in water

**Answer: D**



**Watch Video Solution**

**16.** What leads to eutrophication in rivers?

A. Excessive use of fertilizers

B. Excessive production of crops

C. Decrease in carbon dioxide in water

D. Increase in the temperature of water

**Answer: A**



**Watch Video Solution**

## **17. ELECTROSTATIC PRECIPITATOR**

- A. Generation of electricity from air
- B. Control accidents through electricity
- C. Recording the amount of precipitation
- D. Removal of particles present in smoke

**Answer: D**



**Watch Video Solution**

**18.** Which is the gas that produces the most damaging acid rains ?

- A. Carbon monoxide
- B. Sulphur dioxide
- C. Carbon dioxide
- D. Oxygen

**Answer: B**



**Watch Video Solution**

**19.** compound that combines with haemoglobin of blood to form carboxy haemoglobin of blood to form carboxy haemoglobin is

- A. Carbon dioxide
- B. Sulphur dioxide
- C. Nitrogen dioxide

D. Carbon monoxide

**Answer: D**



**Watch Video Solution**

**20.** List any three human activities that you think lead to air pollution.

A. Oil spills

B. Industrial emission

C. Agricultural runoff



D. Domestic wastewater

**Answer: B**



**Watch Video Solution**

**21. How many types of pollution are there?**

A. 1

B. 2

C. 3

D. 4

**Answer: D**



**Watch Video Solution**

**22.** What causes the increasing contamination of air and water on Earth?

- A. Acid rain
- B. Soil erosion
- C. Earthquakes
- D. Increasing population

**Answer: D**



**Watch Video Solution**

**23.** Which element is responsible for providing carbon dioxide to plants for photosynthesis?

A. Air

B. Land

C. Water

D. Sunlight

**Answer: A**



**Watch Video Solution**

**24. What is pollution?**

A. Presence of harmful substances in environment

B. Increase in the number of people on Earth

C. Occurrence of natural disasters

D. Decrease in wildlife

**Answer: A**



**Watch Video Solution**

**25.** Which one of these is not a process involved in the purification of water at a water treatment plant?

A. Eutrophication

B. Sedimentation

C. Chlorination

D. Filtration

**Answer: A**



**Watch Video Solution**

**26.** Which of these can help reduce air pollution?

A. Grass fires

B. Air conditioners

C. Thermal power plants

D. Electrostatic precipitators

**Answer: D**



**Watch Video Solution**

**27. Which of these is a clean source of energy?**

A. Petrol

B. Coal

C. Wind

D. Wood

**Answer: C**



**Watch Video Solution**

**28. Which one of these is NOT an air pollutant?**

A. Carbon monoxide

B. Sulphur dioxide

C. Oxygen

D. Lead



**Answer: C**



**Watch Video Solution**

**29.** A certain city does not provide unleaded petrol for the vehicles available in the region. Which of these problems could you see in this city?

- A. Lower crop yield
- B. Cholera in children
- C. Lower IQ in children

D. Death of aquatic plants and animals

**Answer: C**



**Watch Video Solution**

**30.** Which one of these natural phenomena does NOT cause air pollution?

A. Dust storm

B. Forest fire

C. Volcanic eruption

D. Agricultural run-off

**Answer: D**



**Watch Video Solution**

**31.** Which of these gases when inhaled reduces the oxygen-carrying capacity of blood?

A. CFC

B. Carbon dioxide

C. Sulphur dioxide

D. Carbon monoxide

**Answer: D**



**Watch Video Solution**

**32.** Which of these is not an effect of air pollution?

A. Eutrophication

B. Global warming

C. Acid rain

D. Haze

**Answer: A**



**Watch Video Solution**

**33.** Identify the one which does NOT belong to the group on the basis of their application in water purification plant.

A. Charcoal

B. Gravel

C. Caum

D. Sand

**Answer: C**



**Watch Video Solution**

**34.** You wish to purify drinking water at your home by chemically treating it. Which one of these chemicals would you add to water for this task?

A. Bleaching powder

B. Sodium chloride

C. Caustic soda

D. Baking soda

**Answer: A**



**Watch Video Solution**

**35.** Which one of these is a component you will NOT find in any water filters?

A. Activated charcoal

B. Ceramic candles

C. Ultraviolet rays

D. Alum

**Answer: D**



**Watch Video Solution**

**36.** During which one of these processes carried out in a water purification plant does water become colourless?



A. Sedimentation

B. Chlorination

C. Coagulation

D. Filtration

**Answer: D**



**Watch Video Solution**

**37.** Which one of these sequences correctly summarises the order in which different

processes are carried out at a water purification plant?

A. Sedimentation → filtration →  
coagulation → chlorination

B. Sedimentation → coagulation →  
filtration → chlorination

C. Chlorination → coagulation →  
sedimentation → filtration

D. Sedimentation → chlorination →  
coagulation → filtration

**Answer: B**



**Watch Video Solution**

**38.** Distilled water is the purest form of water. It is tasteless, colourless and odourless and does not contain any dissolved minerals or salts. Which one of the above-discussed properties of distilled water is the reason why it **CANNOT** be considered equivalent to potable water?

A. It does not have any dissolved minerals.

B. It does not have any specific odour.

C. It does not have any specific taste.

D. It does not have any colour.

**Answer: A**



**Watch Video Solution**

**39.** Which one of these substances should ideally NOT be present in potable water?

A. Carbon dioxide

B. Mineral salts

C. Oxygen

D. SPMs

**Answer: D**



**Watch Video Solution**

**40.** Which one of these is a plan taken up by the Government of India to reduce water pollution?

A. The INSPIRE Programme

B. National Service Scheme

C. The Ganga Action Plan

D. UJALA Scheme

**Answer: C**



**Watch Video Solution**

**41.** Which one of these measures would contribute more towards water pollution instead of reducing it?

A. Using weedicides

B. Using biofertilizers

C. Installing sewage treatment plants

D. Using organic wastes to make manure

**Answer: A**



**Watch Video Solution**

**42. How does water pollution affect humans?**

A. By causing diarrhoea and typhoid

B. By causing food poisoning

C. By reducing crop yield

D. All of the above

**Answer: D**



**Watch Video Solution**

**43.** Which one of these sources of water pollution does not involve any pollutants?

A. Industrial wastewater



B. Domestic wastewater

C. Agricultural run-off

D. Thermal pollution

**Answer: D**



**Watch Video Solution**

**44.** Why is oil spill dangerous for aquatic life?

A. Oil floats on water and cuts off oxygen  
and sunlight.

B. Oil sinks in water and settles on the floor of the water body.

C. Oil mixes with water and aquatic organisms find it hard to swim in it.

D. Oil contains certain nutrients in excess, which leads to eutrophication.

**Answer: A**



**Watch Video Solution**

**45.** Eutrophication is caused by

A. industrial wastewater

B. domestic wastewater

C. agricultural run-offs

D. oil spills

**Answer: C**



**Watch Video Solution**

**46.** Which one of these is a daily life application of water?

A. As a fuel for vehicles

B. As a gas for breathing

C. As a means of cooking food

D. As a supporter of combustion

**Answer: C**



**Watch Video Solution**

47. Taj Mahal marble is affected by

A. The Taj Mahal has walls that are filled with moisture.

B. The Taj Mahal has turned into yellowish colour.

C. The Taj Mahal has turned into reddish colour.

D. The Taj Mahal has become structurally weak.

**Answer: B**



**Watch Video Solution**

**48.** Which of these fuels is an effective measure to control air pollution?

A. Unleaded petrol

B. Natural gas

C. Wood

D. Coal

**Answer: B**



**Watch Video Solution**

**49.** Which of these household appliances leads to the release of chlorofluorocarbons into the air?

- A. Television
- B. Air conditioner
- C. Microwave oven
- D. Washing machine

**Answer: B**



**Watch Video Solution**

**50.** Carbon monoxide is harmful to human beings as it is

- A. It lowers the IQ levels in children.
- B. It causes kidney problems in humans.
- C. It forms carboxyhaemoglobin in blood.



D. It causes respiratory diseases such as asthma.

**Answer: C**



**Watch Video Solution**

**51.** Which one of these causes of air pollution releases particulate matter into the air?

A. Vehicular emissions

B. Volcanic eruptions

C. Burning of coal

D. Grass fires

**Answer: D**



**Watch Video Solution**

**52.** You have recently witnessed each of the natural phenomena listed below. Identify the natural phenomenon which does not contribute to air pollution.

A. Volcanic eruptions

B. Earthquakes

C. Forest fires

D. Grass fires

**Answer: B**



**Watch Video Solution**

**53.** Which one of these is the biggest factor responsible for air pollution across the world today?

A. Industrial emission

B. Vehicular emission

C. Volcanic eruptions

D. Oil spills

**Answer: B**



**Watch Video Solution**

**54.** Air is \_\_\_\_\_.

A. a mixture of oxygen and nitrogen only

B. a mixture of oxygen and carbon dioxide  
only

C. a mixture of carbon dioxide and  
nitrogen only

D. a mixture of oxygen, carbon dioxide and  
nitrogen

**Answer: D**



**Watch Video Solution**

55. Which one of these gases is considered as an air pollutant, even if it is present in the air in small amounts?

A. Oxygen

B. Nitrogen

C. Carbon dioxide

D. Carbon monoxide

**Answer: D**



**Watch Video Solution**

56. Which one of these gases is not poisonous in nature but is regarded as a pollutant when its level in the air exceeds a certain extent?

A. Carbon monoxide

B. Sulphur dioxide

C. Carbon dioxide

D. Nitrogen oxide

**Answer: C**



**Watch Video Solution**

