

# 18

## Pollution of Air and Water

### MULTIPLE CHOICE QUESTIONS

- Air is a mixture of various gases. One of the gases is 21% part of the air and is essential for the survival of human beings. This gas is
  - nitrogen
  - oxygen
  - ozone
  - argon
- Which of the following is not a source of air pollution?
  - automobile exhaust
  - burning of firewood
  - windmill
  - power plant
- Boojho wishes to contribute in reducing air pollution. Which vehicle should he use for going to school?
  - car
  - school bus
  - autorickshaw
  - scooter
- Which of the following is not a way to conserve water?
  - replace
  - reduce
  - reuse
  - recycle
- The type of pollution which is likely to affect Taj Mahal in Agra to a greater extent is
  - air pollution
  - water pollution
  - soil pollution
  - noise pollution
- Incomplete combustion of fuel such as petrol and diesel gives
  - nitrogen oxide
  - sulphur dioxide
  - carbon monoxide
  - carbon dioxide
- The phenomenon of marble cancer is due to
  - soot particles
  - CFCs
  - fog
  - acid rain
- Potable water is the water which is
  - obtained from a river.
  - obtained from a lake.
  - pure and fit for drinking.
  - used only for washing clothes.

9. Which of the following procedures will give you water free from all impurities?
- (a) adding chlorine tablets      (c) boiling  
(b) distillation                      (d) filtration
10. A pond contains clean water. Which of the following activities will produce least pollution of water?
- (a) washing clothes in the pond  
(b) animals bathing in the pond  
(c) washing motor vehicles in the pond  
(d) swimming in the pond.
11. Trees help in reducing the pollution of our environment. Lakhs of trees are planted by people in the month of July every year. The occasion is called
- (a) forest Conservation Day      (c) Van Mahotsav  
(b) plantation month              (d) wildlife week
12. Which of the following is not a green house gas?
- (a) nitrogen gas                      (c) methane gas  
(b) water vapour                      (d) carbon dioxide

### VERY SHORT ANSWER QUESTIONS

13. Name the chemicals which are used in refrigerators and air conditioners and damage ozone layer when released in air.
14. Name any two sources which cause air pollution due to suspended particulate matter.
15. Name two gases which are mainly responsible for acid rain?
16. The quality of air at various locations is monitored regularly by government and other agencies? In what way can you use these data?
17. Combustion of fossil fuels generates a lot of air pollution. Can you suggest any two alternative sources of energy which do not cause any pollution?
18. Name any two water pollutants which are toxic for plants and animals.

### SHORT ANSWER QUESTIONS

19. A lot of dry leaves are collected in a school garden and are burnt every day. Do you think that it is right to do so? If not, what should be done to dispose off the dry leaves?
20. The level of air pollution is higher at a busy traffic intersection. Why?
21. Fill in the blanks with the help of words given in bracket after each sentence.
- (a) When air is contaminated by \_\_\_\_\_ substances which have a \_\_\_\_\_ effect on both the \_\_\_\_\_ and \_\_\_\_\_, it is referred to as \_\_\_\_\_.  
(air pollution, harmful, living, unwanted, non-living, pollutants).
- (b) Many \_\_\_\_\_ are responsible for causing \_\_\_\_\_ pollution. Petroleum \_\_\_\_\_ are a major source of \_\_\_\_\_ pollutants like \_\_\_\_\_ and \_\_\_\_\_.  
(sulphur dioxide, refineries, industries, nitrogen dioxide, gaseous, liquid, people, air).
- (c) While \_\_\_\_\_ your teeth, leaving the \_\_\_\_\_ running may waste several \_\_\_\_\_ of water.  
(tap, litres, brushing, washing, drops)
- (d) Water which is suitable for \_\_\_\_\_ is called \_\_\_\_\_ water.  
(washing, bathing, drinking, potable, soft).
- (e) Water which looks clean still has disease carrying \_\_\_\_\_ and \_\_\_\_\_ impurities.  
(insects, microorganism, particles, dissolved, harmful).
22. Match the items of **Column A** with those of **Column B**.

| Column A                | Column B                                       |
|-------------------------|------------------------------------------------|
| (a) sulphur dioxide     | (i) damage ozone layer                         |
| (b) carbon dioxide      | (ii) reduces oxygen-carrying capacity of blood |
| (c) carbon monoxide     | (iii) acid rain.                               |
| (d) chlorofluorocarbons | (iv) green house gas                           |

23. Find out the wrong statements and write them in their correct form.
- (a) We can survive for some time without air but we cannot survive even for a few minutes without food.
  - (b) A brick kiln emits lot of smoke and other harmful gases causing air pollution.
  - (c) Carbon monoxide is produced by complete burning of fuels such as coal, petrol, diesel.
  - (d) Chlorination is a commonly used chemical method for killing germs in water.
  - (e) Water which is suitable for drinking is called soft water.
24. In the following statements, the underlined words are jumbled up. Write them in their correct form.
- (a) Air contains 78% ginroten and 21% gonexy.
  - (b) Vehicles produce high level of pollutants like carbon dioxide, nitrogen oxides, nobrac moondexi and mosek.
  - (c) Carbon dioxide, thaneme, nitrous oxide and water vapour are known as heengrouse sesga.
  - (d) Gangotri glacier in Himalaya has started melting because of lablog ringwam.
  - (e) Whenever harmful substances such as wagese, toxic chemicals, silt, etc. get mixed with water, the water becomes potdulle.

### LONG ANSWER QUESTIONS

25. What do CFCs stand for? Name some devices where CFCs are used. Why CFCs are considered as pollutants?
26. Why is it advised that industries should switch over to cleaner fuels such as CNG and LPG in the Taj Mahal Zone in Agra?
27. It is said, “CO<sub>2</sub> contributes to global warming.” Explain.
28. We should plant trees and nurture the ones already present in the neighbourhood. Why?
29. Explain the traditional way of purifying water to make it fit for drinking.

30. How can we reduce, reuse and recycle water?

31. Read the paragraph and answer the questions following it.

Water is essential for life. Without water there would be no life. We usually take water as granted for its purity, but we must ensure the quality of water. Pollution of water originates from human activities. Through different paths, pollution reaches to ground water. Easily identified source or place of pollution is called as point source, e.g.– municipal and industrial discharge pipes, where pollutants enter the water source. Non–point sources of pollution are those where a source of pollution can not be easily identified, e.g.– agricultural run off, acid rain etc.

- (i) How do you classify the various sources of water pollution?
- (ii) What are the point sources of water pollution?
- (iii) Name any two non–point sources of water pollution?

32. Complete the crossword puzzle with the help of clues given below:

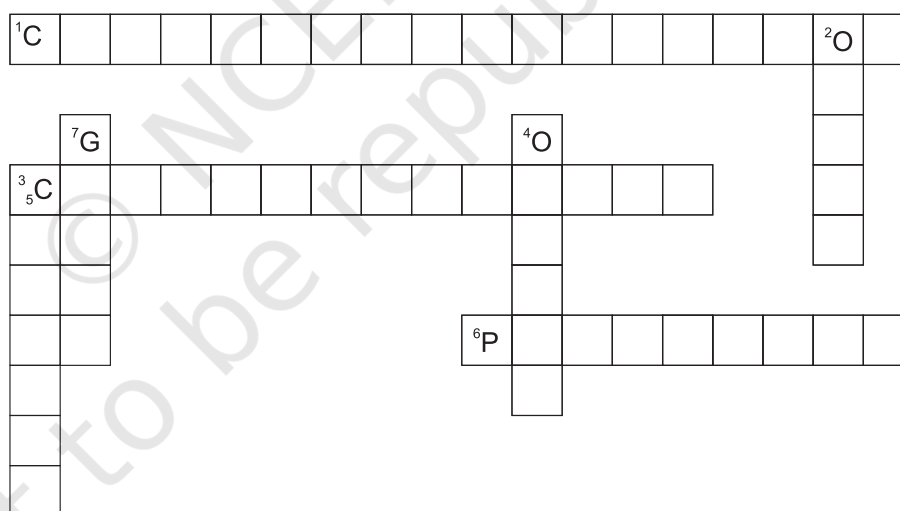


Fig. 18.1

**Across**

1. Pollutant which was used in refrigerators and air conditioners. (18)
3. Produced on incomplete combustion of fuels. (14)
6. This chemical protects our crops and is washed into water bodies from the field. (9)

**Down**

2. This layer protects us from harmful ultraviolet rays. (5)
4. It is essential for combustion. (6)
5. Disease which is caused by drinking contaminated water. (7)
7. River which is famous in India and sustains most of the northern, central and eastern Indian population. (5)