

Class 8 Pollution of Air and Water MCQs

1. Incomplete combustion of fuels releases ____ gas.

- a.) NO_2
- b.) CO
- c.) CO_2
- d.) SO_2

Answer – (b.) CO

Explanation – Incomplete combustion of fuels produces carbon monoxide gas (CO). When inhaled, carbon monoxide is a poisonous gas because it reduces the oxygen-carrying capacity of our blood.

2. Which kind of pollutant can easily be removed from polluted water?

- a.) Solid
- b.) Liquid
- c.) Dissolved
- d.) Nutrients

Answer – (a.) Solid

Explanation – Physical or mechanical means can easily remove solid large-sized materials from polluted water as they are not dissolved in water. These can include plastics, metals, sand, and other materials.

3. Which of the following fuels causes minimum air pollution?

- a.) Kerosene oil
- b.) Petrol
- c.) Coal
- d.) Hydrogen

Answer – (d.) Hydrogen

Explanation – When hydrogen burns, it turns into water vapour. There is no release of carbon or other compounds into the atmosphere.

4. The most polluted river in the world is ____.

- a.) Yamuna river

- b.) Ganga river
- c.) Cauvery river
- d.) Chenab river

Answer – (b.) Ganga river

Explanation – Every day, approximately three million litres of sewage are discharged into the Ganges, with only about half of that being treated. The river's waters are so polluted that it is considered one of the world's most polluted waterways.

5. Global warming causes:

- a.) Change in pressure of earth
- b.) No change in temperature
- c.) Increase in temperature of earth
- d.) Decrease in temperature of the earth

Answer – (c.) Increase in temperature of earth

Explanation – Global warming is the gradual rise in global temperature caused by the greenhouse effect due to increased levels of carbon dioxide, CFCs, and other pollutants.

6. Which of the following methods of water purification will not kill microorganisms?

- a.) Distillation
- b.) Boiling
- c.) Chlorination
- d.) Filtration

Answer – (d.) Filtration

Explanation – Filtration is a physical method for separating insoluble contaminants from water but does not kill microorganisms.

At boiling temperatures, boiling and distillation kill all pathogens.

Pathogens such as bacteria and viruses are killed by chlorine by breaking the chemical bonds in their molecules.

7. Which of the following is/are greenhouse gas?

- a.) Carbon dioxide
- b.) Methane
- c.) Nitrous oxide
- d.) All of the above

Answer – (d.) All of the above

Explanation – Greenhouse gases trap the sun's heat, preventing it from escaping into space and contributing to global warming.

8. The last step in the treatment of sewage is ____.

- a.) Aeration
- b.) Chlorination
- c.) Evaporation
- d.) Decantation

Answer – (b.) Chlorination

Explanation – Chlorination is the process of adding a specific amount of chlorine to water to create a residual strong enough to kill bacteria, viruses, and cysts. It is done at last just before releasing the water into the distribution system.

9. Which of the following is a natural source of air pollution?

- a.) Volcanic eruptions
- b.) Forest fire
- c.) Smokes from industries
- d.) Automobile exhausts

Answer – (a.) Volcanic eruptions and (b.) Forest fire

Explanation – Smoke from industries and automobiles from exhausts are man-made sources of pollution, as industries and automobiles are made by man.

10. Water that is fit for drinking purposes is known as ____.

- a.) Potable water
- b.) Sewage water
- c.) Seawater
- d.) Portable water

Answer – (a.) Potable water

Explanation – Potable water, also known as drinking water, is obtained from surface and ground sources and is treated to meet consumption standards.

11. Smog is a mixture of:

- a.) Water and air
- b.) Smoke and dust
- c.) Smoke and fog
- d.) Fog and dust

Answer – (c.) Smoke and fog

Explanation – Smog is composed of smoke and fog (tiny water particles suspended in the air). Smoke contains nitrogen oxides, which combine with other air pollutants and fog to form smog.

12. Which of the following is not a major source of water pollution?

- a.) Agricultural waste
- b.) Industrial waste
- c.) Untreated sewage
- d.) None of the above

Answer – (d.) None of the above

Explanation – Waste from industries and untreated sewage is released into the water as well the waste from agriculture mixed with running water causes pollution. Hence, all the options given are a major source of water pollution.

13. The gas responsible for acid rain is:

- a.) NO_2
- b.) CO_2
- c.) SO_2
- d.) CH_4

Answer – (a.) NO_2 and (c.) SO_2

Explanation – Acid rain results when NO_2 and SO_2 gas mixes with water droplets in clouds resulting in the formation of nitric and sulphuric acids, which come down as rain.

14. The Ganga Action Plan was launched by:

- a.) Mahatma Gandhi
- b.) Rajeev Gandhi
- c.) Indira Gandhi
- d.) Jawaharlal Nehru

Answer – (b.) Rajeev Gandhi

Explanation – The Ganga Action Plan was launched by Rajeev Gandhi, the then prime minister of India. The main aim of the Ganga Action Plan is to reduce the pollution levels in the river Ganga.

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

- a.) Carbon dioxide
- b.) Nitrogen
- c.) Methane
- d.) Nitrous oxide

Answer – (b.) Nitrogen

Explanation – Greenhouse gases trap the heat and do not let it escape the atmosphere. Nitrogen gas does not have the ability to trap heat. Hence, it is not a greenhouse gas.

16. The impurities in sewage are a suspended mixture of:

- a.) Organic impurities
- b.) Inorganic impurities
- c.) Faecal matter
- d.) Food waste

Answer – (a.) Organic impurities and (b.) Inorganic impurities

Explanation – Sewage contains both organic and inorganic impurities, such as food wastes and microorganisms, faecal matter (organic), detergents (inorganic), and so on.

17. The phenomenon of trapping heat in the atmosphere is:

- a.) Ozone depletion
- b.) Greenhouse effect
- c.) Global warming
- d.) Air pollution

Answer – (b.) Greenhouse effect

Explanation – The Greenhouse effect causes an increase in the average temperature of the earth's near-surface air and oceans.

The greenhouse effect is the process by which radiation from a planet's atmosphere warms its surface to a temperature higher than it would be if the planet didn't have an atmosphere.

18. Which of the following diseases is caused due to drinking contaminated water?

- a.) Typhoid

- b.) Polio
- c.) Dengue
- d.) Measles

Answer – (a.) Typhoid and (c.) Dengue

Explanation – Water-borne diseases are caused by drinking water contaminated with pathogenic microorganisms from human or animal faeces. These are spread through flies and mosquitoes as carriers.

19. Which of the following gases is responsible for an increase in global warming?

- a.) Methane and CO_2
- b.) Methane and CO
- c.) Methane and O_3
- d.) Methane and NO_2

Answer – (a.) Methane and CO_2 .

Explanation – Global warming is caused by an increase in greenhouse gases in the atmosphere, such as methane and CO_2 . Both methane and carbon dioxide contribute significantly to global warming.

20. Which of the following steps can be taken to reduce water pollution?

- a.) Planting more trees
- b.) Treating sewage water before discharging
- c.) Using organic fertilisers and pesticides
- d.) All of the above

Answer – (d.) All of the above