

Pollution Science Mastery

Environmental Science · Practice Test · 15 Questions

1. Which process describes the accumulation of toxins in higher trophic levels of a food web?

- A) Bioremediation
- B) Bioaccumulation
- C) Biomagnification
- D) Biodegradation

2. What is the primary chemical component responsible for the depletion of the stratospheric ozone layer?

- A) Chlorofluorocarbons
- B) Carbon dioxide
- C) Sulfur dioxide
- D) Methane

3. Which form of pollution is specifically categorized as 'non-point source' pollution?

- A) Factory wastewater discharge
- B) Leaking underground storage tank
- C) Agricultural runoff from rain
- D) Exhaust from a single vehicle

4. What is the chemical formula of the primary greenhouse gas produced by the incomplete combustion of fossil fuels?

- A) CO₂
- B) CO
- C) CH₄
- D) NO₂

5. Which heavy metal, historically used in paints and pipes, is a potent neurotoxin that accumulates in the nervous system?

- A) Cadmium
- B) Mercury
- C) Lead
- D) Arsenic

6. The process of 'cultural eutrophication' is primarily driven by an excess of which two nutrients?

- A) Nitrogen and Phosphorus
- B) Carbon and Oxygen
- C) Potassium and Sulfur
- D) Calcium and Magnesium

7. Which type of radiation is trapped by greenhouse gases, leading to the atmospheric warming effect?

- A) Ultraviolet
- B) X-ray
- C) Infrared
- D) Gamma

8. Acid rain is primarily caused by the atmospheric reaction of water with which two gases?

- A) Sulfur dioxide and Nitrogen oxides
- B) Methane and Carbon monoxide
- C) Oxygen and Argon
- D) Hydrogen and Helium

9. What is the term for the degradation of soil quality due to excessive irrigation, leading to the accumulation of minerals?

- A) Salinization
- B) Desertification
- C) Erosion
- D) Leaching

10. Which plastic polymer is the most common constituent of 'microplastics' found in marine ecosystems?

- A) Polyvinyl chloride
- B) Polyethylene
- C) Polystyrene
- D) Polyurethane

11. Which specific environmental hazard is associated with the release of volatile organic compounds (VOCs) in indoor settings?

- A) Sick Building Syndrome
- B) Ozone hole formation
- C) Acidification
- D) Thermal inversion

12. What is the function of a 'scrubber' in an industrial smokestack?

- A) To measure gas concentration
- B) To remove particulate matter and sulfur
- C) To convert carbon dioxide to oxygen
- D) To compress waste for storage

13. Which layer of the atmosphere contains the 'ozone layer' that filters harmful ultraviolet radiation?

- A) Troposphere
- B) Mesosphere
- C) Stratosphere
- D) Thermosphere

14. The term 'Persistent Organic Pollutants' (POPs) refers to substances that possess which characteristic?

- A) They degrade rapidly in sunlight
- B) They are highly water-soluble
- C) They resist environmental degradation
- D) They are non-toxic to wildlife

15. Which pH range characterizes 'acid rain' compared to normal unpolluted rain?

- A) pH 7.0 to 7.5
- B) pH 5.6 or lower
- C) pH 8.0 to 9.0
- D) pH 10.0 to 11.0