

AP Environmental Science: Unit – 7 - Atmospheric Pollution Practice Test

Question 1

Which of the following is an example of a secondary pollutant?

- A. Ozone
- B. Carbon Monoxide
- C. Carbon Dioxide
- D. Sulfur Dioxide
- E. Nitrogen Dioxide

Question 2

Which of the following indoor air pollutants is a type of radioactive gas that seeps into a home through cracks in the foundation or soil, and may cause lung cancer?

- A. Asbestos
- B. Carbon monoxide
- C. Radon
- D. VOCs
- E. Mercury

Question 3

Which piece of legislation was the first that addressed air pollution as a national problem and announced that research and additional steps to improve the situation needed to be taken?

- A. Air Pollution Control Act
- B. Clean Air Act
- C. National Environmental Policy Act
- D. Pollution Prevention Act
- E. U.S.–Canada Air Quality Agreement

Question 4

This form of smog tends to be sulfur-based (also known as grey-smog):

- A. organic smog
- B. photochemical smog
- C. urban smog
- D. industrial smog
- E. none of the other answers are correct

Question 5

Which of the following has the EPA classified as criteria air pollutants?

- A. carbon monoxide
- B. sulfur dioxide
- C. particulate matter
- D. nitrogen dioxide
- E. all of these are classified as criteria air pollutants

Question 6

During prolonged periods of _____, air pollutants build up and are trapped in a dense, cool layer of air beneath a layer of less dense, warm air.

- A. Upwelling
- B. Photochemical smog
- C. Temperature inversion
- D. Front collision

Question 7

Acidification of lake and reservoir surface waters is caused by what type of pollutants?

- A. Water pollutants only
- B. Air & water pollutants
- C. Air pollutants only
- D. None of these

Question 8

This primary pollutant creates a reddish brown gas creating photochemical smog and tropospheric ozone.

- A. sulfuric acid
- B. VOC
- C. nitrogen dioxide
- D. particulate matter

Question 9

This atmospheric compound is critical to the planet in its protection against UV radiation, but when found close to the ground is part of photochemical smog that can cause serious health problems.

- A. particulate matter
- B. carbon monoxide
- C. carbon monoxide
- D. tropospheric ozone

Question 10

Which of the following government agencies is responsible for the Clean Air Act?

- A. the USGS
- B. the USDA
- C. the EPA
- D. the USDOJ

Question 11

Which two primary pollutants most often result in acid rain?

- A. sulfuric dioxide and nitric oxide
- B. carbon monoxide and VOCs
- C. ZEVs and VOCs
- D. carbonic acid and citric acid

Question 12

A type of pollution found both indoors and outdoors, which includes pollen, dander, soot, carbon, and dust.

- A. Water droplets
- B. Allergens
- C. Particulate matter
- D. Combustibles

Question 13

The 3 main anthropogenic sources of gaseous air pollutants in the US are

- A. soil erosion, volcanoes, and forest fires
- B. industry, transportation and agriculture
- C. industry, transportation, and energy production
- D. industry, transportation and agriculture

Question 14

Which of the following correctly lists the 6 “criteria” air pollutants as specified under the Clean Air Act?

- A. Pb, SO₂, NO_x, CO, PM, and tropospheric O₃
- B. Tropospheric O₃, SO₂, NO_x, PM, Pb, and CO₂
- C. SO₄, NO_x, CO, PM, Pb, and tropospheric O₃
- D. SO₂, NO_x, CO, Hg, PM, and tropospheric O₃

Question 15

One of the negative effects of air pollution is that it can cause problems in the ozone layer. Which class of chemicals are known to deplete ozone?

- A. Methane
- B. Sulfur dioxide
- C. Chlorofluorocarbons (CFCs)
- D. Carbon dioxide

Question 16

It is a complex mixture of air pollutants produced in the lower atmosphere by the reaction of hydrocarbons and nitrogen oxides under the influence of sunlight. Its harmful components include ozone, peroxyacyl nitrates and various aldehydes.

- A. Temperature Inversion
- B. Industrial Smog
- C. Photochemical Smog
- D. Indoor air pollution

Question 17

This phenomenon involves a layer of dense, cool air trapped under a layer of less dense, warm air. It prevents upward-flowing air currents from developing. When prolonged, air pollution in the trapped layer may build up to harmful levels.

- A. Thermal Inversion
- B. Warm Front
- C. Photochemical Smog
- D. Greenhouse Gas

Question 18

According to the study of World Health Organization, among teenagers and young adults, aged 12-35 years old, around 50% are exposed to unsafe levels of sound from _____.

- A. damaging sounds of concerts
- B. transportation sounds
- C. daily exposure to television sound
- D. personal audio devices

Question 19

The sound level which is comfortable for the human ear.

- A. 80-85 decibels
- B. 120-125 decibels
- C. 60-65 decibels
- D. 100-105 decibels

Answer Key

1. A

2. C
3. A
4. D
5. E
6. C
7. C
8. C
9. D
10. C
11. A
12. C
13. C
14. A
15. C
16. C
17. A
18. D
19. C