

Fundamentals of Environmental Science

Environmental Science · Answer Key · 25 Questions

1. Which gas makes up the largest percentage of Earth's atmosphere?

- A) Oxygen
- B) Nitrogen**
- C) Carbon dioxide
- D) Argon

2. What is the primary source of energy for Earth's climate system?

- A) Geothermal heat
- B) The Moon
- C) The Sun**
- D) Tidal forces

3. Which layer of the atmosphere contains the ozone layer that protects life from UV radiation?

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

4. What is the process by which green plants convert light energy into chemical energy?

- A) Respiration
- B) Transpiration
- C) Photosynthesis**
- D) Decomposition

5. Which of these is considered a non-renewable natural resource?

- A) Solar energy
- B) Wind energy
- C) Coal**
- D) Moving water

6. What is the main component of Earth's hydrosphere?

- A) Glacial ice
- B) Groundwater
- C) Oceans**
- D) Rivers

7. Which biome is characterized by very low precipitation and extreme temperature fluctuations?

- A) Desert**
- B) Tropical rainforest
- C) Tundra
- D) Grassland

8. What term describes the variety of all living organisms on Earth?

- A) Ecosystem
- B) Biodiversity**
- C) Biosphere
- D) Taxonomy

9. Which gas is primarily released during the combustion of fossil fuels and is linked to global warming?

- A) Nitrogen
- B) Oxygen
- C) Carbon dioxide**
- D) Helium

10. What part of the water cycle involves water turning from liquid to vapor due to heat?

- A) Precipitation
- B) Condensation
- C) Evaporation**
- D) Infiltration

11. Which soil layer contains the most organic matter and nutrients?

- A) Topsoil**
- B) Bedrock
- C) Subsoil
- D) Parent material

12. What is the term for an animal that eats only plants?

- A) Carnivore
- B) Omnivore
- C) Herbivore**
- D) Detritivore

13. Which natural disaster is caused by the movement of tectonic plates?

- A) Hurricane
- B) Earthquake**
- C) Drought
- D) Blizzard

14. What is the primary cause of rising sea levels in recent decades?

- A) Increase in rainfall
- B) Melting of land-based ice and thermal expansion**
- C) Increase in underwater volcanic activity
- D) Decrease in ocean salt content

15. Which of these organisms is a primary producer in a marine food web?

- A) Phytoplankton**
- B) Shark
- C) Sea turtle
- D) Jellyfish

16. What type of rock is formed from cooling magma or lava?

- A) Sedimentary
- B) Metamorphic
- C) Igneous**
- D) Limestone

17. Which element is essential for all known forms of life and is the basis of organic chemistry?

- A) Carbon**
- B) Iron
- C) Gold
- D) Neon

18. What is the main role of decomposers in an ecosystem?

- A) To produce oxygen
- B) To break down dead organic matter**
- C) To hunt small mammals
- D) To pollinate flowers

19. Which biome is known as the 'lungs of the planet' due to its high oxygen production?

A) Tropical rainforest

B) Savanna

C) Taiga

D) Chaparral

20. What is the measure of the acidity or alkalinity of a substance?

A) Celsius

B) pH scale

C) Richter scale

D) Decibel

21. Which renewable energy source harnesses the power of moving air?

A) Solar

B) Geothermal

C) Wind

D) Biomass

22. What is the term for the specific environment where an organism lives?

A) Niche

B) Habitat

C) Community

D) Population

23. Which greenhouse gas is produced by livestock during digestion?

A) Methane

B) Oxygen

C) Nitrogen

D) Argon

24. What is the name of the area where freshwater from rivers meets saltwater from the ocean?

A) Estuary

B) Tributary

C) Aquifer

D) Watershed

25. Which layer of the Earth is located directly beneath the crust?

- A) Inner core
- B) Outer core
- C) Mantle**
- D) Lithosphere