

Climate Change & Global Warming - 20 Very Difficult MCQs

1. Which statement best distinguishes climate from weather?

- A) Climate describes atmospheric conditions at a specific time and place.
- B) Weather refers to long-term atmospheric averages.
- C) Climate reflects prevailing weather conditions over long periods.
- D) Weather is measured over several decades.

✓ Answer: C

2. Which of the following is an example of adaptation rather than mitigation?

- A) Buying an electric vehicle
- B) Installing solar panels
- C) Cooling public transportation systems
- D) Reducing fossil fuel consumption

✓ Answer: C

3. Resilience is best defined as:

- A) The ability to stop greenhouse gas emissions completely
- B) A combination of mitigation and adaptation strategies
- C) The natural recovery of ecosystems
- D) Resistance to all climate-related changes

✓ Answer: B

4. Which water cycle process involves the release of water vapor directly from plants?

- A) Condensation
- B) Precipitation

- C) Evaporation
- D) Transpiration

✓ Answer: D

5. Freshwater storage includes all EXCEPT:

- A) Wetlands
- B) Large rivers
- C) Oceans
- D) Lakes

✓ Answer: C

6. The primary driver of movement within the water cycle is:

- A) Wind
- B) Gravity
- C) The Sun
- D) Ocean currents

✓ Answer: C

7. When solar energy reaches Earth and is converted into thermal energy, the resulting waves are:

- A) Shorter and faster
- B) Longer and slower
- C) Unaffected by greenhouse gases
- D) Reflected directly into space

✓ Answer: B

8. The greenhouse effect intensifies because:

- A) More solar radiation enters the atmosphere
- B) Less heat escapes into space
- C) The Earth reflects less sunlight
- D) Clouds completely block radiation

✓ Answer: B

9. Which source of CO₂ is directly related to reducing natural carbon sinks?

- A) Respiration
- B) Coal combustion
- C) Deforestation
- D) Gasoline use

✓ Answer: C

10. According to the lecture, the largest single source of methane emissions is:

- A) Livestock farming
- B) Natural wetlands and oceans
- C) Fossil fuel production, distribution and use
- D) Crop fertilization

✓ Answer: C

11. Nitrous oxide (N₂O) is primarily produced by:

- A) Transportation and industry
- B) Soil bacteria and agricultural activities
- C) Deforestation and combustion
- D) Oceans only

✓ Answer: B

12. Which greenhouse gas is described as approximately 300 times more efficient than CO₂ in trapping heat?

- A) Methane
- B) Water vapor
- C) F-gases
- D) Nitrous oxide

✓ Answer: D

13. According to the greenhouse gas emissions chart, fossil fuel and industrial CO₂ contributes approximately:

- A) 24%
- B) 65%
- C) 16%
- D) 11%

✓ Answer: B

14. The oceans absorb approximately what percentage of excess heat caused by the intensifying greenhouse effect?

- A) 50%
- B) 70%
- C) 80%
- D) 90%

✓ Answer: D

15. Coral reef bleaching is most directly associated with:

- A) Deforestation
- B) Rising sea-surface temperatures
- C) Methane emissions
- D) Groundwater depletion

✓ Answer: B

16. Which economic sector contributes the highest percentage of global greenhouse gas emissions?

- A) Industry
- B) Agriculture, forestry and land use
- C) Transportation
- D) Electricity and heat production

✓ Answer: D

17. Transportation accounts for approximately what percentage of global greenhouse gas emissions?

- A) 6%
- B) 10%
- C) 14%
- D) 21%

✓ Answer: C

18. Which strategy represents mitigation rather than adaptation?

- A) Breeding drought-tolerant crops
- B) Improving livestock ventilation
- C) Switching to renewable energy
- D) Changing crop varieties

✓ Answer: C

19. Precision agriculture is primarily intended to:

- A) Increase greenhouse gas emissions
- B) Reduce unnecessary water and fertilizer use
- C) Expand livestock production
- D) Accelerate urbanization

✓ Answer: B

20. Which statement about climate change is most accurate according to the lecture?

- A) It is caused exclusively by human activity.
- B) It is measured over decades or longer and may result from natural or human causes.
- C) It refers only to increases in temperature.
- D) It is synonymous with weather variation.

✓ Answer: B