



Global Warming and Global Environmental Change

This exercise introduces as well as tests the candidate's knowledge of Global Warming and Global Environmental Change. The aim of this exercise is to demonstrate that the effects of global warming and global environmental change are not one dimensional but highly complex and much interconnected.

Greenhouse Gases, Effect and Global Warming

1. What is the most abundant greenhouse gas
a. Carbon dioxide b. Methane c. Water Vapour d. Nitrous Oxide
2. Without a natural greenhouse effect, the temperature of the Earth would be?
a. 0°C b. 4°C c. 24°C d. -18°C e. 14°C
3. The global concentration of CO₂ in our atmosphere today is approximately?
a. 490 ppm b. 1260 ppm c. 280 ppm d. 380 ppm
4. Global warming is an average and abnormal increase in atmospheric temperatures in / at:
a. Upper atmosphere b. Mesosphere c. Near the Earth Surface
d. In the tropics e. All of the Above
5. The term global environmental change refers to :
a. Climate Change b. Loss of Biodiversity c. Land Use Change
d. None of a, b, & c. e. All of a, b, & c.

Global Environmental Change – Temperature

6. Between 1906 and 2005 the Earth's temperature increased by approximately ____ ± 0.18°C.
a. 1.00°C b. 0.80°C c. 0.50°C d. 2.00°C e. 0.60°C
7. What is the warming trend per decade – globally - over the past 50 years?
a. 0.50°C b. 0.03°C c. 0.13°C d. 1.00°C
8. Although the Earth over the last century has shown an average increase in temperatures, a few areas have been found to be relatively cooler. Which of the following areas (or parts of thereof) has been found to be relatively cooler?
a. Northern Atlantic b. Antarctica c. Eastern Asia d. Southern Africa
9. El Nino is as a result of global warming?
a. True b. False

Global Environmental Change – Hydrology

10. The areas of greatest precipitation decreases have been:





- a. Tropics b. High Latitudes of the Northern Hemisphere c. Southern Africa
d. Northern Australia

11. These areas have noted an annual increase in precipitation:

- a. Northern Australia, Tropics
b. Southern Africa, Tropics
c. Northern Australia, Southern Africa
d. Asia, Tropics

12. Global Warming has resulted in decreases in the Southern Hemisphere's snow cover

- a. True b. False

Global Environmental Change – Extremes

13. Sea Level rise due to global warming is largely due to:

- a. Melting of the polar ice caps
b. Thermal expansion of water
c. Melting of Greenland Ice sheets
d. All of the above.

14. Changes in the number of warm days and warm nights in the northern hemisphere has resulted in

- a. Shortening of the crop growing season
b. No change in the growing season
c. Lengthening of the growing season
d. Haphazard changes

15. Globally the number of tropical cyclones has

- a. Increased
b. Decreased
c. No Change
d. Increase in one hemisphere whilst decreasing in the next

