



## ENVIRONMENT AND HUMANITY: THE RACE TO SAVE THE PLANET

### TEST INFORMATION

This test was developed to enable schools to award credit to students for knowledge equivalent to that which is learned by students taking the course. The school may choose to award college credit to the student based on the achievement of a passing score. The passing score for each examination is determined by the school based on recommendations from the American Council on Education (ACE). This minimum credit-awarding score is equal to the mean score of students in the norming sample who received a grade of C in the course. Some schools set their own standards for awarding credit and may require a higher score than the ACE recommendation. Students should obtain this information from the institution where they expect to receive credit.

### CONTENT OUTLINE

The following is an outline of the content areas covered in the examination. The approximate percentage of the examination devoted to each content area is also noted.

#### I. Ecological Concepts – 30%

Includes ecosystems; global ecology; atmospheric structure; roles of organisms; biodiversity and stability; energy flow; trophic levels; food chains and food webs; biogeochemical cycling; biomes and productivity; population biology; evolution; succession in freshwater and terrestrial communities.

#### II. Environmental Impacts – 30%

Includes human population growth; global climate and weather; greenhouse effect; ozone layer; pollution - physical, chemical, and biological aspects; environmental risk assessment; agricultural and industrial revolutions; industrial development of emerging nations; deforestation; desertification; eutrophication.

#### III. Environmental Management and Conservation – 30%

Includes renewable and nonrenewable resources; the green revolution; agricultural practices; pesticides and pest control; soil conservation and land use practices; air pollution control; drinking water quality and supply; wastewater treatment; solid and hazardous waste; recycling and resource recovery; industrial ecology.

#### IV. Political Processes and the Future – 10%

Includes environmental laws, policies, and ethics; planning and decision making; international policy conflicts and agreements; differing cultural and societal values; future issues of population, food supply, energy, and pollution.

### SAMPLE QUESTIONS

All test questions are in a multiple-choice format, with one correct answer and three incorrect options. You may want to review these samples for the type of questions that may appear on the exam.

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1. The primary factor that determines the location and kind of biomes is
    - a. climate
    - b. soil
    - c. altitude
    - d. latitude
  2. The oceans play a key role in the recycling of carbon and oxygen because of the productivity of
    - a. fish
    - b. marine mammals
    - c. phytoplankton
    - d. zooplankton
  3. Early human populations increased rapidly with the widespread adoption of which of the following practices?
    - a. Hunting
    - b. Fishing
    - c. Farming
    - d. Herding

(Over)

4. Concentrations of carbon dioxide, infrared energy, methane, and water vapor are major contributing factors to
  - a. thermal air inversion
  - b. the greenhouse effect
  - c. urban smog
  - d. acid rain
5. Catalytic converters are used to remove chemicals that contribute to
  - a. lead poisoning
  - b. carbon dioxide asphyxiation
  - c. photochemical smog
  - d. chlorofluorocarbon (CFC) pollution
6. Which of the following countries, with a total fertility rate of less than 2.0, is said to be at "zero population growth"?
  - a. Thailand
  - b. India
  - c. Zimbabwe
  - d. Sweden
7. An oak tree is an example of which of the following?
  - a. Primary producer
  - b. Primary consumer
  - c. Secondary consumer
  - d. Decomposer
8. Incomplete combustion in automobile engines releases which of the following into the atmosphere?
  - a. Radon
  - b. Carbon tetrachloride
  - c. Asbestos
  - d. Hydrocarbons
9. The combined use of fertilizers, pesticides, and hybrid seeds to increase crop yields is characteristic of which of the following?
  - a. The green revolution
  - b. Subsistence farming
  - c. Sustainable yield agriculture
  - d. Agroforestry
10. Which of the following is used to describe all of the living and nonliving features of a given area?
  - a. Community
  - b. Ecosystem
  - c. Biome
  - d. Carrying capacity
11. Recycling of resources is most critical for the conservation of which of the following?
  - a. Biomass
  - b. Food
  - c. Minerals
  - d. Wildlife
12. Which of the following statements is true about the near future of the biosphere?
  - a. Human population will remain stable.
  - b. Coal will be the primary natural energy source.
  - c. The amount of food per person will remain constant.
  - d. Increased industrialization will not increase pollution.

## REFERENCES

The following is a list of reference publications that were being used as textbooks in college courses of the same or similar title at the time the test was developed. Appropriate textbooks for study are not limited to those listed below. If you wish to obtain study resources to prepare for the examination, you may reference either the current edition of the following titles **or** textbooks currently used at a local college or university for the same class title. It is recommended that you reference **more than one textbook** on the topics outlined in this fact sheet. You should **begin by checking textbook content against the content outline** included on the front page of this Fact Sheet **before** selecting textbooks that cover the test content from which to study. Textbooks may be found at the campus bookstore of a local college or university offering a course on the subject.

Sources for study material suggested but not limited to the following:

1. Cunningham, W.P., and B.W. Saigo. *Environmental Science: A Global Concern*. Dubuque, IA: Brown, current edition.
2. Enger, Eldon D. and Bradley F. Smith. *Environmental Science: The Study of Interrelationships*. Dubuque, IA: Brown, current edition.
3. Kupchella, Charles E., and Margaret C. Hyland. *Environmental Science: Living Within the System of Nature*. Englewood Cliffs, NJ: Prentice Hall, current edition.

(Over)

4. Miller, G. Tyler, Jr. *Environmental Science: Working with the Earth*. Belmont, CA: Wadsworth, current edition.
5. Miller, G. Tyler, Jr. *Living in the Environment: Principles, Connections, and Solutions*. Belmont, CA: Wadsworth, current edition.
6. Nebel, Bernard J., and R.T. Wright. *Environmental Science: The Way the World Works*. Englewood Cliffs, NJ: Prentice-Hall, Inc. current edition.
7. Vesilind, P. Aarne, J. Jeffrey Peirce, and Ruth F. Weiner. *Environmental Pollution and Control*. Boston, MA: Butterworth-Heinemann, current edition.
8. Current textbook used by a local college or university for a course on the subject.

### CREDIT RECOMMENDATIONS

The Center for Adult Learning and Educational Credentials of the American Council on Education (ACE) has reviewed and evaluated the DSST test development process for and content of this exam. It has made the following recommendations:

<b>Area or Course Equivalent</b>	Environment and Humanity: The Race to Save the Planet
<b>Level</b>	Lower-level baccalaureate
<b>Amount of Credit</b>	Three (3) semester hours
<b>Source</b>	ACE Commission on Education Credit and Credentials

It is advisable that schools develop a consistent policy about awarding credit based on scores from this test and that the policy be reviewed periodically. Prometric will be happy to help schools in this effort.

**Answers to sample questions:** 1-A; 2-C; 3-C; 4-B; 5-C; 6-D; 7-A; 8-D; 9.A; 10-B; 11-C; 12-B.