

EXAM INFORMATION

This exam was developed to enable schools to award credit to students for knowledge equivalent to that learned by students taking the course. This exam covers topics such as ecological concepts, environmental impacts and conservation.

The exam contains 100 questions to be answered in 2 hours.

Form Codes: SS510, ST510, SY510, SZ510

CREDIT RECOMMENDATIONS

The American Council on Education's College Credit Recommendation Service (ACE CREDIT) has evaluated the DSST test development process and content of this exam. It has made the following recommendations:

Area or Course Equivalent: Environmental Science

Level: Lower-level baccalaureate

Amount of Credit: 3 Semester Hours

Minimum Score: 400

Source: www.acenet.edu

EXAM 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%

- a. Ecosystems
- b. Organism Relationships
- c. Biodiversity
- d. Trophic relationships (e.g. food chain; food web)
- e. Energy flows and cycles
- f. Biomes
- g. Population biology
- h. Evolution
- i. Ecological succession

II. Environmental Impacts – 25%

- a. Human population dynamics
- b. Global climate change
- c. Pollution – physical, chemical, and biological aspects
- d. Agricultural
- e. Industrial
- f. Habitat destruction
- g. Land degradation

III. Environmental Management and Conservation – 25%

- a. Renewable and nonrenewable resources
- b. Agricultural practices
- c. Pesticides and pest control
- d. Soil conservation and land use practices
- e. Air pollution control

- f. Water quality and supply
- g. Wastewater treatment
- h. Solid and hazardous waste
- i. Environmental risk assessment and hazards

IV. Social Processes and the Environment – 20%

- a. Environmental justice
- b. Policy, planning and decision making
- c. Global environmental governance
- d. Differing culture and societal values

REFERENCES

Below is a list of reference publications that were either used as a reference to create the exam, or were used as textbooks in college courses of the same or similar title at the time the test was developed. You may reference either the current edition of these 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 provided before selecting textbooks that cover the test content from which to study.

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

1. Withgott, Jay H; Laposata, Matthew. (2019). Essential Environment: The Science Behind the Stories, 6th Edition. Pearson.
2. Spoolman, Scott; Miller, Tyler G. (2021). Living in the Environment, 20th Edition. Cengage Learning.
3. Begon, Michael; Townsend, Colin R; Harper, John L. Ecology: From Individuals to Ecosystems, 4th Edition. Wiley
4. Field, Barry C. (2016). Natural Resource Economics: An Introduction, 3rd Edition. Waveland Press
5. Hintz, John; Moore, Sarah A; Robbins, Paul. Environment and Society: A Critical Introduction, 2nd Edition. Wiley-Blackwell.

SAMPLE QUESTIONS

All test questions are in a multiple-choice format, with one correct answer and three incorrect options. The following are samples of the types of questions that may appear on the exam.

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
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

Answers to sample questions:

1-A; 2-C; 3-C; 4-B; 5-C; 6- D; 7-A; 8-D