

Notre Dame University- Department of Sciences  
ENS 201- Introduction to Environmental Science  
Fall 2007-2008  
Sample Questions- Exam I

- 1) To say that environmental science is mission oriented means it is:
  - a) A highly organized endeavor
  - b) Essentially an information gathering endeavor
  - c) **Oriented toward solving problems**
  - d) Designed to understand relationships
- 2) Sustainable development means:
  - a) **Improving people's lives in the present in a way that can continue far into the future**
  - b) Providing ever-increasing amounts of adequate housing
  - c) Continued growth indefinitely
  - d) Utilizing ever-increasing quantity of natural resources
- 3) The first law of thermodynamics states that:
  - a) Matter and energy can readily be transformed into one another
  - b) **Energy can neither be created nor destroyed under normal conditions**
  - c) Energy cannot be shifted from one form to another
  - d) Matter cannot be shifted from one form to another
- 4) Cellular respiration is the process by which organisms:
  - a) **Release energy from sugar for metabolic use**
  - b) Create complex organic molecules from simple molecules
  - c) Convert heat to chemical bond energy for metabolic work
  - d) All of the above are correct
  - e) Two of the above are correct
- 5) The productivity of an ecosystem refers to the:
  - a) Amount of food consumed by the organisms per unit space
  - b) Average number of offspring produced per adult female per unit time
  - c) **Amount of biological material produced during a certain period of time**
  - d) Reproductive output
  - e) None of the above
- 6) The desert biome develops in those areas:
  - a) With low precipitation and high temperatures
  - b) **With low precipitation and, depending on altitude, high or low temperatures**
  - c) In the center of large continents
  - d) In association with mountain ranges
- 7) Important ecological services provided by wetlands include:
  - a) A reduction in flooding
  - b) Detoxification of substances dissolved in water
  - c) Replenishment of groundwater
  - d) **All of the above and more**

- 8) Humans:
- a) Have damaged or disturbed over half the world's terrestrial ecosystems, at least to some extent
  - b) Have disturbed the land, which has become the single greatest cause of species loss
  - c) Are estimated to have directly or indirectly, redirected 40% of terrestrial net productivity
  - d) **Have produced all of the above impacts**
- 9) The world's population increases by about ----- people per year.
- a) 800,000
  - b) 8 million
  - c) **80 million**
  - d) 800 million
- 10) 11-The rapid increase in human numbers after A.D. 1600 resulted from:
- a) Increased trading between nations
  - b) Better health care
  - c) Improved agricultural efficiencies
  - d) **All of the above**
  - e) Both b and c
- 11) Marx believed that:
- a) Excess population growth produces food shortages, which produces poverty and misery
  - b) **Exploitation of people produces poverty, which produces population growth with its attendant miseries**
  - c) Technological improvements were the only way to improve the human condition
  - d) Aggressive birth control programs were the most important tools to reduce the misery associated with excess population growth
  - e) None of the above
- 12) Ecological economics:
- a) Sees nature as worthy of protection
  - b) Advocates the concept of steady-state economy
  - c) Believes we are dependent on nature to provide various life support services
  - d) **Includes all of the above**
- 13) Examples of nonrenewable resources include:
- a) Copper
  - b) Lead
  - c) Fossil fuels
  - d) **All of the above**
- 14) Attempts at using market-based mechanisms to reduce pollution:
- a) Include charging a fee per unit of pollutant released
  - b) Include using tradable pollution permits
  - c) Are enthusiastically embraced by ecologists
  - d) **Are described by two of the above**