

ENVIR 202: Lesson No. 11



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Midterm Examination

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1

Short Answer Questions

1. Describe a disease in terms of its infectivity, pathogenicity, and virulence.
 - ✓ *Infectivity = an agent's ability to enter a human host, as in a virus or bacteria spread by airborne transmission.*
 - ✓ *Pathogenicity = an agent's ability to cause a disease once it is inside a human host*
 - ✓ *Virulence = the severity of a disease, often measured by morbidity or mortality rates, e.g., rabies*

ENVIR 202: Lesson 11

2

Short Answer Questions

2. What are three ways to intensify agriculture, and what are the implications of one of them?

- ✓ **Intensification:**
 - Fertilizer
 - Pesticides
 - Irrigation
 - Mechanical plowing, cultivating, harvesting
- ✓ **Implications:**
 - Greater yields
 - Greater vulnerability
 - Dependence upon petroleum / energy

ENVIR 202: Lesson 11

3

Short Answer Questions

3. What are some of the difficulties associated with measuring past human populations

- ✓ Lack of written records, census, counting, reporting
- ✓ Population changes -- migrations, disease, etc.
- ✓ Archeological evidence -- expensive, lost
- a) **Why should we care?**
 - ✓ Human history
 - ✓ History can shed light on the present
 - ✓ Understand change over time
- b) **Why do the numbers matter?**
 - ✓ Help understand cause/effect relationships
 - ✓ Help understand the past and the forces involved.

ENVIR 202: Lesson 11

4

Short Answer Questions

4. What were some of the ways that people made connections between health and environment in the 19th century?

- ✓ Miasmas --> germ theory
- ✓ Sanitary reform movement
- ✓ Toxicology (Paracelsus)

ENVIR 202: Lesson 11

5

Short Answer Questions

5. In what ways do traditional homes differ from modern homes socially and/or environmentally? (name at least three).

- ✓ Local construction
- ✓ Local building materials
- ✓ Adapted to environment
- ✓ Derived from and support culture

Then, describe three examples of ways in which traditional homes might adapt to their local environments.

- ✓ Use of natural materials (wood, stone, adobe, etc.)
- ✓ Built to allow ventilation, light to enter (warm climates)
- ✓ Built to hold in heat (cold climates)
- ✓ Collect or shed rain

ENVIR 202: Lesson 11

6

Short Answer Questions

6. We are using two different books (Riis and McMichael) two lecturers and different articles from different authors in this class.
- a) Why is it important to use different modes of information when studying the environment?
 - ✓ Different lenses illuminate different aspects
 - b) Are there any specific advantages or disadvantages of using one information source over the other?
 - ✓ Yes -- some sources of information have more credibility in terms of scientific or historic accuracy
 - ✓ No -- Perspectives colored by religion, culture or tradition are equally valid and valuable

ENVIR 202: Lesson 11

7

Essay Questions

- A. Both Chuck and Gail stressed the importance of recognizing that the "lenses" that we use to view any phenomena color the way we see things.
- 1) Explain what they mean by "lenses", identifying at least three of the lenses that have been brought to bear on the subject of human population and health.
 - ✓ Economic, Ecologic, Political, etc.
 - 2) Explain how the use of these lenses have sharpened our view and how they can also blind us.
 - ✓ Magnify or highlight differences
 - ✓ Focus attention
 - ✓ Colors perceptions
 - 3) Suggest at least one other lens that could be used to examine the interaction of various factors impacting populations and their health.
 - ✓ Culture, history, academic discipline, religion, etc.

ENVIR 202: Lesson 11

8

Essay Questions

B. Over the last two hundred years the world's population has become increasingly urban.

- 1) What has driven this shift in human living patterns?
 - ✓ Change in production/consumptions patterns -- from agrarian to industrial --> service --> information
- 2) Using examples from the lectures, textbooks, readings and films, detail three "push" and three "pull" factors that have contributed to this trend.
 - ✓ Push -- lack of jobs, agri-business, social opportunities,
 - ✓ Pull -- jobs, arts & entertainment, money, military
- 3) What are some of the human health and ecological consequences of this shift in where people live? What can or should societies do to maximize the benefits and minimize the costs associated with urbanization?
 - ✓ Positive -- higher income, better nutrition, housing, education, community infrastructure (water, sewers, etc.), etc.
 - ✓ Negative -- not enough jobs, homelessness, higher prices, pollution, overcrowding, stressed or declining infrastructure, etc.

ENVIR 202: Lesson 11

9

Next Lesson

Limits to Growth

ENVIR 202: Lesson 11

10