

COLUMBUS STATE COMMUNITY COLLEGE

ESSH 1101-Introduction to Environmental Science, Safety & Health

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Quiz 1 - Units 1 & 2 (60 points)

1. The maximum number of individuals of a species that can be sustained by an environment without decreasing the resources into the future is referred to as _____ (2 points)

- a. Sustainability
- b. Carrying Capacity
- c. Human Population Growth
- d. Utilitarianism

2. Many of the earth's resources are currently being utilized at an unsustainable rate. For example certain minerals, ground water, land and wildlife. The formal scientific definitions of "sustainability" is: (2 points)

- Sustainability: the capacity of the Earth's natural systems that support life and human economic systems to survive or adapt to changing environmental conditions indefinitely

3. Identify two specific results linked to Rachel Carson's book Silent Spring. (4 points)

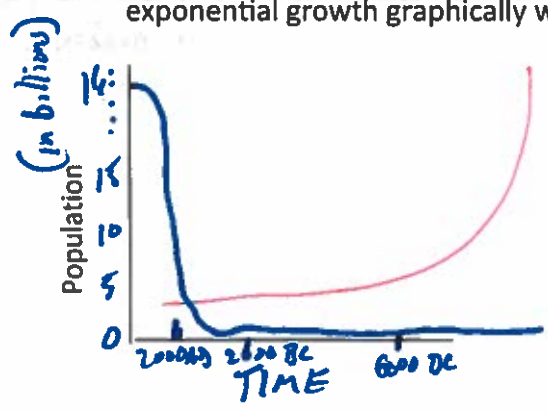
- 1. Heightened public awareness to pollution & environmental issues
- 2. Regulation of several dangerous pesticides

4. Over the last 200 years, death rates have dropped sharply because of improved sanitation and health care, including the development of antibiotics and vaccines to help control infectious diseases. (2 point)

- a. True
- b. False

5. Describe what is meant by Exponential Human Population Growth, and illustrate exponential growth graphically where provided. (4 points)

Exponential growth occurs when a quantity increases at a fixed percentage per unit of time. Typically it starts slowly but after a few doublings it grows to enormous numbers



- a. True
- b. Fals
- e

13. The rate of population growth has slowed since 1960, but the world's population is still growing. (1 point)

- a. True
- b. Fals
- e

14. Cities can't ever be sustainable because they have such high concentrations of people, automobiles, business enterprises, and industries. (1 point)

- a. True
- b. Fals
- e

15. Although car sharing has been successful in Europe, it has never been tried in the United States. (1 point)

- a. True
- b. Fals
- e

16. To keep human population constant, the global total fertility rate would have to equal ____.(1 point)

- a. 0
- b. 0.5
- c. 1
- d. 2.1
- e. 1

17. The population of a country will decline if its age structure diagram ____.(1 point)

- a. is widest in the middle
- b. does not change in width until the very top
- c. is shaped like a skinny pyramid
- d. is shaped like a broad-based pyramid
- e. is wider at the top than at the bottom

- c. Environmental wisdom worldview
- d. Life-centered worldview

25. In contrast to the life-centered worldview, the human-centered environmental worldview considers all species as having value as participating members of the biosphere regardless of their potential or actual use to humans. (1 point)

- a. True
- b. False
- e

26. Exponential growth occurs when a quantity such as the human population increases at a fixed percentage per unit of time, such as 0.5% or 2% per year. (1 point)

- 1
- a. True
 - b. False
 - e

27. Natural resources are considered natural capital, whereas ecosystem services are not. (2 points)

- 2
- a. True
 - b. False

Natural capital = natural resources + ecosystem services