**APES Study Guide**

**Population Dynamics**

Vocabulary:

It is necessary that you know the meaning of the following terms in order to answer application and evaluation questions on your upcoming assessment. You may write out the definition, make notecards (handwritten or digital), use the online vocabulary resources or simply review the terms in your notes. It is YOUR responsibility to ensure that you know these terms!

Limiting factors / resistance Biotic potential Compact development

r-strategist Replacement level fertility “Throwaway” lifestyle

K-strategist Population momentum

Density-independent factor IMR

Density-dependent factor GNP

Carrying capacity TFR

Short Answer:

You are REQUIRED to answer each of the following questions on separate paper. ALWAYS write in complete sentences. Use both your class notes AND your textbook for reference.

1. Draw an S-curve illustrating logistic growth of a population. Label the lag phase, exponential phase, and carrying capacity.
2. Draw a graph illustrating the 3 types of survivorship curves. Label each, and give an example of an organism that typically demonstrates that type of growth curve.
3. What is the current approximate world population of humans? What is the current approximate population of the United States? What are the 3 most populous countries in the world today?
4. In what parts of the world is human population most stable? In what parts of the world is human population growing most rapidly?
5. Write out the equations for “Natural Increase”, “Population Growth Rate”, and “Doubling Time”.

(NOTE: You must be able to apply these equations without the use of a calculator)

1. EXPLAIN the stages of the demographic transition.
2. Sketch the characteristic shape of an age-structure diagram showing rapid population growth, stable population growth, and declining population growth.
3. Identify 2 reasons for the dramatic increase in the human population in the last century. WHY does the growth rate of the US continue to increase even though birth rate is declining?
4. Name the major factors that determine a country’s quality of life.
5. Differentiate between “people/human” overpopulation and “consumption” overpopulation. Where in the world is each considered a problem?

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