

EXAM FOUR EXPECTATIONS

ENVIRONMENTAL SCIENCE EXAM FOUR “Population Concepts”

STATE the formula for population growth
STATE the formula for “doubling time”
STATE the current size of the world’s population
STATE the relationship between individual survivorship curves and reproductive strategies
STATE the goal of population ecology
STATE the relationship between population growth and socioeconomic condition
STATE prediction for human population growth in the decades to come
STATE the most important factor affecting human fertility rates
DEFINE population ecology
DEFINE population density
DEFINE demography
DEFINE carrying capacity
DEFINE population growth momentum
DEFINE replacement level fertility
DEFINE dieback
DEFINE environmental resistance
DEFINE zero population growth
DEFINE gender inequality
DEFINE voluntary simplicity
LIST the continent and countries who are growing most rapidly
LIST characteristics of r-selected and K-selected species
LIST factors that affect fertility rates (humans)
LIST the top three largest countries in terms of population
LIST services provided by family planning
LIST the countries with the greatest predicted population in decades to come
OUTLINE Thomas Malthus’s ideas and contributions
OUTLINE intrinsic rate of growth
OUTLINE reasons for human population growth
OUTLINE the relationships between population growth and economics
OUTLINE the reasons for high fertility in developing countries
DESCRIBE family planning measures in India
DESCRIBE the Poverty Action Lab
CALCULATE population growth rates
CALCULATE doubling times for a population
IDENTIFY exponential and logistic growth curves on a graph
COMPARE immigration and emigration
COMPARE exponential and logistic growth
COMPARE K-selected and r-selected species
COMPARE the different survivorship curves
COMPARE density dependent and density independent limiting factors
COMPARE characteristics of countries in each of the 4 demographic stages
DISCUSS Nigeria’s population today and in the future
EXPLAIN why establishing a carrying capacity for humans is so difficult
EXPLAIN the relationship between education and fertility rates
PREDICT which organism has highest/lowest intrinsic rate of increase
PREDICT population growth from age structure diagrams
EVALUATE population growth rates and PREDICT the relative rate of growth from them
ANALYZE age structure pyramids
ANALYZE marriage data and births and draw a conclusion

