

Population Dynamics and the Human Population Exam Review

1. Know all the differences between r-strategists and K-strategists.
(most of the facts are opposites, but also know the populations and survivorship graphs, and usual example organisms for each)
2. Know how to calculate doubling time and growth rate(r) both with and without migration. don't let the math cost you!
3. Know how to estimate population size using the Lincoln Index formula.
4. Know the difference between exponential growth and logistical growth and their associated graphs.
5. Know the definition of biotic potential and factors that influence it. (biotic potential graph resembles exponential growth)
6. Understand the difference between species richness, dominance, and evenness.
(richness is the best indicator of overall biodiversity, followed by evenness. dominance and evenness are essentially opposites.)
7. Know the 4 main differences between developing and developed countries.
(also look back at the comprehensive comparison list of differences – most of which are common sense)
8. Know the difference between GNP and GDP.
(remember that GNP or GDP is the usual deciding factor when classifying countries as developed or developing)
9. Be able to name countries that are developed or developing or emerging. (look at our list of good examples of each)
10. Know the most populous countries, their present populations, and the current world population.
11. Know the difference between TFR and replacement fertility and how it relates to population growth.
12. Know what occurs in each of the 5 stages of the Demographic Transition Model – 7 questions on this!
(a lot of this is graph interpretation, but the best thing to do is to see if you can replicate a sketch of DTM)
13. Know the reasons why the trends in each of the DTM stage occur
14. Know which countries fit into each stage of the DTM. (just the ones we talked about)
15. Know that the demographic shifts that occur in the DTM are a direct result of industrialization
16. Know the general actions governments take to help control a population
(remember that controlling a population doesn't always mean to limit its growth, in some cases growth is needed)
17. Know the general facts behind the case studies regarding governmental influence on populations.:
(we especially focused on China, India, Russia, and Thailand – knowing when policies were instituted is also important)
18. Know the factors that affect birth rates and death rates. (that there are 2 separate lists – don't mix them up!)
19. Know the two statistics demographers use to determine the overall quality of life.
20. Be able to read and interpret age structure diagrams (population pyramids), know which stages of the DTM each corresponds to, and example countries for each diagram.
(graph reading again – look back at the 5 sample questions I gave you to refresh your memories)