Biosphere Populations Test Review

The following data table applies to questions 1-7

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age Range | 0-9 | 10-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | 80+ |
| %Male | 3 | 4 | 5 | 7 | 10 | 12 | 9 | 7 | 4 |
| %Female | 4 | 4 | 6 | 9 | 11 | 11 | 10 | 6 | 2 |

1. Draw an age-structure diagram using the above table of information.
2. Describe the age demographic of this country.
3. Do you think this is an example of a developed, developing or declining country? Why do you think so?
4. Why do you think there is such a small percentage of the population in the later age ranges?

What implications does this age-structure diagram have on the future of the population in this country?

1. Give an example of a country that has this type of age-structure.
2. How would the age-structure diagram of a declining country look in comparison to this country?
3. What implications does that have on the future of the population of a declining country?
4. List the three most populous nations in the world, including estimates of each nation’s population size.
5. List and explain two factors (aside from cultural norms) that influence birth rates.
6. List and explain two cultural norms in third-world countries that have caused birth-rates to increase.
7. Draw a diagram showing a normal demographic transition, labeling each stage in the progression.
8. For the drawing described, what paradigm shift brings on this great population explosion? Identify and describe TWO characteristics of this “revolution” that lead to this population increase.
9. What was Thomas Malthus’ opinion on the population growth going on?
10. Define Total Fertility Rate (TFR) and explain how it differs from crude birth rate.
11. What is racial profiling? Do you believe this type of system is a necessary security precaution? Why or why not?
12. What is a national policy already set in place that regulates population control? What is the penalty for not complying with this policy?
13. List and explain two possible solutions to this population crisis. Of those two, which do you think is more effective and why?
14. Identify two traits about r-strategies, and describe how they are different from K-strategists
15. What is the rule of 70? Why the number 70?
16. What are the four primary things that influence a country’s population growth rate? Express this in a formula.
17. If a country has a crude birth rate of 45, crude death rate of 15, immigration rate of 10 and an emigration rate of 5 (all numbers are per 1,000 people) calculate the rate of population growth.
    1. Which of the four has the biggest influence on the United States’ population growth?
    2. At the current growth rate calculated, how long will it take for a population to double?
18. What is the normal formula for population growth? Identify what each variable represents? (remember - expressing your answers using this formula IS okay for the AP exam, but I will want the answers exact on my test).
19. If the population growth rate of a country of 10,000 people is 5%. How many years will it take for the population to reach 40,000 people?
20. How would you calculate the population density of a country/city?
    1. If 19.6 million people inhabit a country with an area of 8.3 million square kilometers. Calculate the population density, in square kilometers per person.