

Module 4: Populations

1. Differentiate between the three dispersion patterns (clumped, random, and evenly spaced)
2. Population change =
3. Birth Rate = _____
Death Rate = _____
4. What is the difference between immigration and emigration?
5. Annual Rate of natural population change (%) =
6. Survivorship Curves

Type	Characteristics	Sample species	Graph example
I			
II			
III			

7. The population is (growing rapidly / steady / declining sharply) in developed countries and (growing rapidly / steady / declining sharply) in developing countries.
8. Rule of 70: Doubling Time =
9. The population of Nigeria is increasing by 2.8% a year. How long will it take for its population to double? (Show your work)
10. R and K selected!!!!

11.

Exponential Growth		Linear Growth	Geometric Growth	Logistic Growth
Define				
Limits				
Shape of graph				
Examples				

12. Examine the list of the 10 most populous countries:

- Which 2 countries have the largest populations? _____

13. Replacement level fertility is the _____
_____. If is approximately _____ in developed countries and as high as _____
in developing countries. Why is replacement level fertility higher in developing countries? _____

14. The total fertility rate is the _____
_____. In 2004 the TFR was _____ in developed countries and _____ in developing countries.

15. What is the projected 2050 world population? _____

16. What factors impact a country's average birth rate and TFR?

17. The increase in world's population growth rate over the past 100 years was caused mainly by _____
_____ in (developed / developing) countries. The main reasons for this change include _____

18. Two important indicators of the overall health of a population are _____ and the _____

19. What countries encourage immigration? _____

20. Populations are broken into three major categories – list the age range of each

- Pre-reproductive _____
- Reproductive _____
- Post-reproductive _____

21. If a country has a high percentage of its population below age 15 it will have (pyramid-shaped / straight-sided) age structure diagram and its population will (rise / fall) even if every woman has only one or two children. An example of a country with this type of age-structure diagram is (Germany / Spain / U.S. / Guatemala).

22. Demographic transition: Circle your choice in the first 3 columns. List the underlying causes in the last column.

Stage	The birth rate....	The death rate....	The population	The underlying causes for this include....
Stage 1: Preindustrial	remains high remains low increases decreases	remains high remains low increases decreases	increases decreases is constant	

Stage 2: Transitional	remains high remains low increases decreases	remains high remains low increases decreases	increases decreases is constant	
Stage 3: Industrial	remains high remains low increases decreases	remains high remains low increases decreases	increases decreases is constant	
Stage 4: Postindustrial	remains high remains low increases decreases	remains high remains low increases decreases	increases decreases is constant	

23. Compare and contrast the population policies of India and China:

India	Kenya	China

24. Congratulations! You are in charge of the world. Discuss the 3 most important features of your population policy. _____

25. The threshold of hearing for humans is _____ decibels. When you are speaking with a friend the decibel level is normally about _____. If you were visiting an airport the decibel level would be _____ which is close to the threshold of pain at _____.

26. Noise pollution affects all species of animals in similar ways – such as

- _____
- _____

- _____

27. Characteristics of the following

Urban	Suburban	Rural

28. What are some of the negative environmental effects of urbanization?

- _____
- _____
- _____
- _____

29. What causes the increased temperature in urban areas? (heat island)

30. Sustainable and planned communities are becoming more popular. What are some basic characteristics of these communities?

- _____
- _____
- _____
- _____
- _____