

Unit 4 Study Guide

Test Design: 23 Multiple Choice, 5 Matching, 2 Graphing Analysis Questions, and 2 Short Answer Questions
Study: Relationships Notes, Population Notes, Human Population Notes, Biodiversity Notes, and Vocabulary

1. How is the population of prey impacted if there is an increase in the population of the predator?

The population of the prey will decrease.

2. Define symbiosis and list the three types of symbiotic relationships.

close relationship between 2+ species
 mutualism, commensalism, parasitism

3. How are predation and parasitism similar? How are they different?

Similar - both use prey/host for nourishment.
 different - predators kill prey, parasites usually don't kill hosts

4. Define mutualism and give an example of this relationship.

both organisms benefit. Rhino & tick bird

5. Define commensalism and give an example of this relationship.


one organism benefits, the other isn't harmed. Trees & orchids

6. Define parasitism and give an example of this relationship.

one organism benefits, the other is harmed but not usually killed.

7. Explain the Endangered Species Act, what it aims to protect, and the punishments for violating it.
 prohibits hunting, the sale of, or removing endangered species.
 dogs and fleas
 Punishment = large fine

8. What is meant by exponential growth?

Rapid & constant growth 

9. What is infrastructure and why is it important to a growing country?

Basic facilities → roads, bridges, sewers. Because growing populations need strong infrastructures.

10. What must occur for a population's growth rate to be zero?

births = deaths

11. Name some ways humans impact extinction rates.

deforestation, habitat destruction, invasive species, poaching

12. How does educating women help lower birthrates?

educated women are more likely to learn about and use family planning methods.

13. What is an age-structure pyramid?

shows the distribution of ages & genders in a country.

14. How would an age-structure pyramid look for a rapidly growing country? Why?

more young people → larger base because people are having tons of kids

15. What are the differences between endangered species and threatened species?

endangered - in danger of becoming extinct
 threatened - may become endangered unless things change.

16. What is important about the role keystone species have?

They are critical to the ecosystem. Without them, the ecosystem could collapse.

17. Explain ways different countries have tried to address population growth.

one child policy, financial incentives, legal consequences, advertising, family planning, educating women

18. Explain why it is important to protect biodiversity.

We use various species for food, shelter, clothing, and medications
 Also, it helps populations adapt to changes.

19. What is carrying capacity and what factors impact it?

the largest population an environment can support -
- the availability of resources

20. What is replacement rate fertility?

When each couple has 2 children to replace themselves
When they die

21. When did humans first begin experiencing very rapid population growth?

the modern age / industrial revolution

22. What is an indicator species and why are they so useful for determining the health of an ecosystem?

it tells scientists about the health of an ecosystem

23. What is growth rate?

the increase in size of a population over time.

24. What is fertility rate?

the # of births per 1000 women aged 15-44 per year

25. What will happen to the population of a native species when a competing invasive species moves in?

it will decrease because the invasive species can out-compete the native one.

26. Fill in the below information for developing countries.

a. Rate of population growth?

Rapid

b. Average income?

low

c. Type of economy?

agricultural

d. Social supports/systems?

Poor, few

e. Three examples?

haiti, Mexico, Kenya

27. Fill in the below information for developed countries.

a. Rate of population growth?

low or none

b. Average income?

high

c. Type of economy?

diverse, industrial

d. Social supports/systems?

Stronger, many

e. Three examples?

US, France, Canada