

FRONT

Unit 9: Ecology Practice Test

Matching:

Match the terms below to their definitions by writing the corresponding letter in the blank space.

1. ___ A group of organisms of all the same species that are living and interacting in one area
 2. ___ Interacting populations of many species that interact in one area
 3. ___ A symbiotic relationship in which both species are benefiting
 4. ___ A symbiotic relationship in which one species is being harmed while the other is benefiting
 5. ___ A species that moves into an area first during primary succession; is small and reproduces quickly
 6. ___ A geographical area that is characterized by specific plants and animals
 7. ___ All living and nonliving components of an area
 8. ___ An organism that preys upon another organism
 9. ___ An organism that has a parasite living on or in it, and is being harmed by the parasite
-
- | | |
|---------------|---------------|
| a. Mutualism | f. Predator |
| b. Parasitism | g. Ecosystem |
| c. Pioneer | h. Biome |
| d. Climax | i. Community |
| e. Host | j. Population |

Multiple Choice Directions:

Please place the letter that corresponds to the correct answer, or option that best completes the sentence in the space provided.

10. ___ How is matter obtained by a heterotroph/consumer?
 - a. Photosynthesis
 - b. Cellular respiration
 - c. Consumption
 - d. Osmosis

11. ___ The recycling of matter within all biogeochemical cycles occurs in the soil as _____ break down organic compost into inorganic substances.
 - a. heterotrophs
 - b. autotrophs
 - c. zerotrophs
 - d. decomposers

12. ___ Which biogeochemical cycle does NOT have an atmospheric component?
 - a. Nitrogen
 - b. Carbon
 - c. Phosphorus
 - d. All of the above

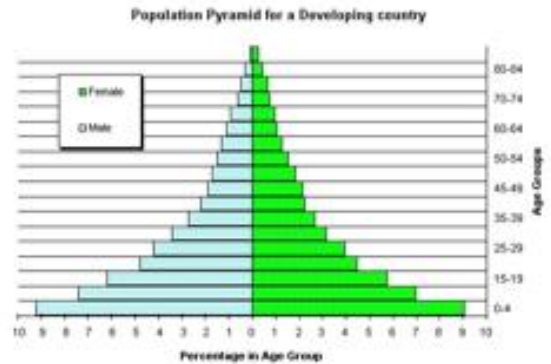
13. ___ The largest component of our atmosphere is nitrogen gas (N_2). This is made through the process of
 - a. nitrification
 - b. denitrification
 - c. nitrogen fixation
 - d. cellular respiration

14. ____ Where is the most carbon stored on our planet?
- In the deep ocean
 - In the atmosphere
 - In plants
 - In the soil/land
15. ____ Which of the following is not true of the nitrogen cycle?
- Plants absorb nitrogen gas directly from the atmosphere
 - Bacteria convert nitrogen gas into ammonia
 - Plants absorb nitrates from the soil
 - Animals obtain nitrogen by eating other organisms
16. ____ The combustion of fossil fuels has increased the atmospheric levels of
- ammonia
 - nitrogen
 - CFCs
 - carbon dioxide (CO₂)
17. ____ Plants, algae and cyanobacteria are producers, which means that they produce _____ from _____.
- carbon dioxide; oxygen
 - carbon dioxide; sugar
 - sugar; carbon dioxide
 - sugar; oxygen
18. ____ Where is the most nitrogen stored on our Earth?
- Deep ocean
 - Living plants
 - Atmosphere
 - Rivers
19. ____ Photosynthesis is a process performed by:
- consumers
 - producers
 - heterotrophs
 - decomposers
20. ____ Photosynthesis is an important part of the ____ cycle because it removes ____ from the atmosphere.
- C; CO₂
 - P; CO₂
 - O; CO₂
 - C; CO
21. ____ Which of the following statements about populations is INCORRECT?
- Population size is the number of individuals in a population
 - Populations are dynamic, therefore, are ever-changing
 - Population growth rate is determined only by birth rate
 - Population dynamics include birth rate, death rate, and life expectancy

Practice Test

22. ___ When the birth rate and the death rate of a population are equal, and there is no emigration or immigration,
- the population is growing in size
 - the population is remaining constant in size
 - the population is decreasing in size
 - the life expectancy of individuals in the population is very great

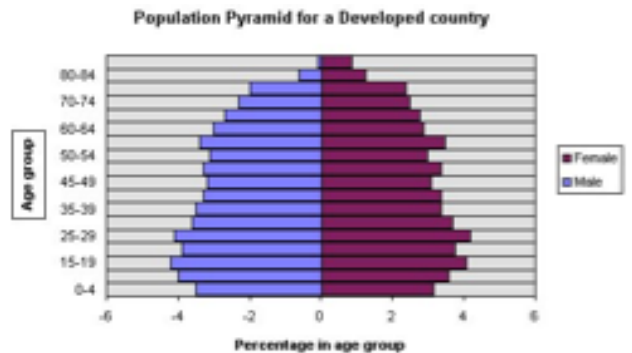
23. ___ The graph of the age structure shown here most likely represents the population of a **developing** country because:



- there are more females than males in the oldest age class
- there are many more people that are children than there are people in the 50s
- the population has a low birth rate.
- the population is relatively even throughout all age classes and sexes.

24. ___ The human global population is currently about:
- 6 million
 - 7 million
 - 4 billion
 - 7 billion

25. ___ The graph of the age structure shown here most likely represents the population of a **developed** country because:



- there are more females than males in the oldest age class.
- there are many more people that are children than there are people in the 50s.
- the population has a large potential for rapid growth.
- the population is relatively even throughout all age classes and sexes

26. ___ How did the agricultural revolution promote human population growth the **most**?
- It improved economic conditions for many people
 - It improved the availability and stability of food supplies
 - It enabled people to move to new areas and establish new sites for population growth
 - It increased the general level of health of most people in the world

27. ___ Organisms that occupy the second trophic level of an ecosystem are referred to as:
- herbivores
 - producers
 - carnivores
 - autotrophs
28. ___ When looking at a diagram of the trophic levels of an ecosystem, which best explain why the boxes get smaller as you move up the trophic pyramid?
- The amount of available energy decreases by 90% as you move up each step
 - The number of individual organisms decreases as you move up each step
 - There are fewer older organisms than there are younger organisms
 - Both a and b
29. ___ Which of the following is an example of mimicry?
- heath-sensitive pits in rattle snakes
 - scarlet king snake (nonvenomous) color markings that are similar to the coral snake (venomous)
 - leaf-like coloration of a praying mantis
 - bright coloration of certain frogs
30. ___ Which of the following is **NOT** an example of **community-level interactions**?
- Predator/prey relationships
 - Competition between a fox and a coyote
 - Parasitism
 - Two bull elk competing for breeding rights
31. ___ Competition is most intense between closely related species that:
- are similar in appearance
 - have different beak sizes
 - use the same resources
 - use different resources
32. ___ Food chains differ from food webs in that food chains:
- depict only one line of energy transfer, while food webs depict many interrelated food chains
 - include more organisms than do food webs
 - include producers and consumers, while food webs only include consumers
 - show whom eats whom, while food webs show energy transfer
33. ___ Which of the following is NOT an example of a symbiotic relationship?
- Tick on a dog
 - Oxpecker on a giraffe
 - Coyote eating a rabbit
 - A lichen, which is a fungi and algae