**CHAPTER 2 MID-TERM EXAM REVIEW 2012**

***QUESTIONS 1-7 SHOULD BE ANSWERED AS A TYPE II (SIMPLE ANSWERS ARE SUFFICENT FOR QUESTIONS 8-11)***

1. Describe the levels of organization of the biosphere. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: individual organisms, populations, species, community, ecosystem, abiotic factors, biome, climate, biosphere
2. Contrast a habitat and a niche and use an example for each. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: habitat, niche
3. Explain when competition among organisms occurs. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: resources, strong, weak
4. Describe predation and use an example. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: pursuing, consuming, predator, prey
5. Describe the three different kinds of symbiosis and give an example of each. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: mutualism, commensalism, parasitism, benefit, harm, parasite, host .
6. Contrast autotrophs and heterotrophs. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: autotroph, heterotroph, energy, food, primary producers, consumers, sunlight, inorganic substances
7. Describe the three types of heterotrophs. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: herbivore, carnivore, omnivore, plants, animals
8. Explain the importance of detritivores and decomposers in an ecosystem. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: dead, nutrients, fungi, bacteria, producers, break down
9. Describe the three types of heterotrophs. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: herbivore, carnivore, omnivore, plants, animals
10. Describe the components of a food chain. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: trophic level, energy, arrows, autotrophs, heterotrophs, primary producer, primary consumer, secondary consumer, tertiary consumer, quarternary consumer
11. Contrast the three types of ecological pyramids. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: energy, biomass, numbers
12. Explain the law of conservation of mass. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: matter, created, destroyed
13. Explain how nutrients are cycled among organisms in an ecosystem. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: producers, consumers, decomposers
14. Explain the water cycle. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: evaporation, water vapor, condensation, precipitation, groundwater, runoff, transpiration
15. Explain the carbon and oxygen cycle. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: photosynthesis, carbon dioxide, oxygen, cellular respiration, fossil fuels, weathering, erosion
16. Explain the nitrogen cycle. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: nitrogen gas, bacteria, nitrogen fixation, proteins, decomposers, ammonia, denitrification
17. Explain the phosphorus cycle. BE SURE TO USE TO FOLLOWING TERMS and UNDERLINE THEM WHEN USED: phosphates, producers, consumers, decomposers, precipitation, sedimentation, weathering, erosion,
18. Using Figure 1 on p 32-33…
    1. Approximately how long, from the time a phaseout began, did it take for the sale of leaded gasoline for vehic le use to be banned?
19. Using Figure 6 on p 37…
    1. What makes up the ecosystem?
    2. What makes up the biological community?
    3. What are the populations?
    4. Name an individual organism
20. Using DATA ANALYSIS LAB 1 on p 39…
    1. For which organism was the hypothesis of the researchers supported?
    2. Describe the differences in population growth for the two species of protozoans.
    3. What was the intrinsic growth rate of Paramecium at 30 degrees C?
21. Using Figure 11 on p 41…
    1. At which trophic level(s) is it impossible for the lynx to be occupying?
22. Using Figure 13 on p 43…
    1. At what trophic level is the snake? The mouse? The grasshopper? The plant?
    2. From where is the plant getting its energy?
23. Using Figure 14 on p 43…
    1. Name the organism(s) being eaten by the ridgenose snake?
    2. Name the organism(s) eating the kangaroo rat?
    3. At what trophic level(s) is the chihuahyuan raven?
24. Using Figure 15 on p 44…
    1. How much of the energy of the primary consumers is transferred to the secondary consumers? \*\* use the pyramid of energy
    2. Approximately how many g/m2 of primary producers is consumed by each g/m2 of primary consumer? \*\* use the pyramid of biomass
    3. Approximately how many primary consumers are consumed by each secondary consumer? \*\* use the pyramid of numbers
25. Using Figure 16 on p 45…
    1. What is providing nutrients for the cow?
    2. What will get nutrients from the cow?
26. Using Figure 17 on p 46…
    1. Through what process are the ocean and lake adding water vapor to the atmosphere?
    2. What process is adding water vapor to the atmosphere from the plants?
    3. What happens to the water vapor added to the atmosphere by the two processes you named in a and b?
    4. To where does the groundwater and runoff from the land go?
27. Using Figure 18 on p 47…
    1. What are the four ways carbon dioxide is added to the atmosphere?
    2. What are the two sources of carbon dioxide dissolved in the water and what happens to it?
    3. From what are fossil fuels formed and what happens to them?
28. Using Figure 20 on p 48…
    1. Which kind of organism converts soil nitrates into atmospheric nitrogen?
    2. Where does atmospheric nitrogen go?
    3. From where do plants get nitrogen?
    4. From where do animals get nitrogen?
    5. What kind of organism converts animal wastes to soil nitrates?
29. Using Figure 21 on p 49…
    1. From where do plants get phosphorus?
    2. From where do animals get phosphorus?
    3. What kind of organisms convert animal wastes to phosphates?