Wildlife Sample Test Questions/Answers

Section I: Multiple Choice. Circle the most correct answer. (2pts each)

1. A community and the non-living factors with which it interacts is known as a/an _____.
   a. Ecosystem
   b. Niche
   c. Edge
   d. Interspersion

2. Which of the following factors affect population growth?
   a. Net emigration
   b. Net immigration
   c. Birth rate
   d. All of the above

3. Hunting for migratory game birds in North America is primarily regulated by the:
   a. Federal Government
   b. County Government
   c. State Government
   d. Municipal Government

4. During extreme cold temperatures, white-footed mice (*Peromyscus leucopus*) will sometimes go through short periods of inactivity to conserve energy. This is an example of____.
   a. Aestivation
   b. Hibernation
   c. Torpor
   d. Winter lethargy

5. Diseases that can be transmitted from animals to humans are known as:
   a. Endemics
   b. Zoonotics
   c. Antibodies
   d. Endothermics

6. Keystone species are those on which other species in an ecosystem largely depend. Out of the following list, select the best example of a keystone species:
    a. Eastern rat snake
    b. Allegheny woodrat
    c. Beaver
    d. Ruffed grouse

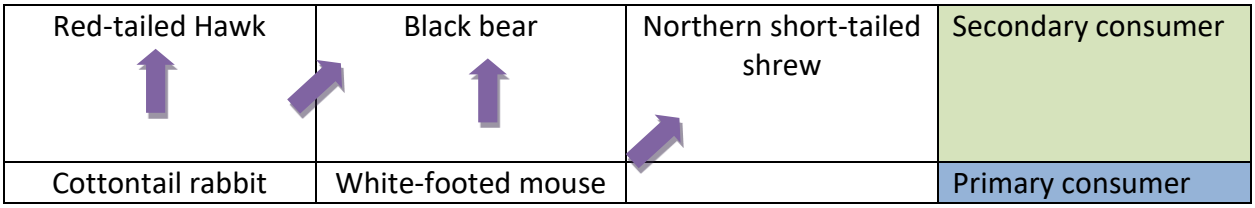
7. The largest member of the family Sciuridae in Maryland is the:
    a. Raccoon
    b. Woodchuck
    c. Beaver
    d. Fox Squirrel

Section II: Food Strategies & Food Webs

9. Match the following animals with their most commonly recognized feeding strategy: **1 pt each**

c____ Northern short-tailed shrew	a. herbivore
d____ Black bear	b. carnivore
b____ Red-tailed hawk	c. insectivore
a____ Cottontail rabbit	d. omnivore
e____ White-footed mouse	e. granivore

10. Arrange the above listed species in a food web. Label trophic levels. **5 pts**



3 pts for arrangement
2 pts for labeling trophic levels

Section III: Habitat

11. Using the aerial photo and your knowledge of species' habitat requirements (and field guides, if necessary), indicate whether each of the listed wildlife species would most likely be found in Area 1 or in
Area 3 (as labeled on the aerial photo). **(1 pt each)**

a) Timber Rattlesnake- 1
b) Eastern Small-footed bat- 1
c) Eastern Cottontail- 3
d) Black-And-White-Warbler- 1
e) Mourning Dove- 3
f) Valley-And-Ridge Salamander- 1

12. If you are charged with managing Area 3 for bobwhite quail, name 2 habitat improvement projects you would employ to help this species. **2 pts**
Prescribed burning
Planting warm season grasses
Enhancing field buffers
Removing invasive species
Increasing shrub cover

13. Would Area 2 be suitable habitat for Whip-Poor-Wills? Why or why not? **2pts**
Yes (1pt). The area contains a mix of deciduous and conifer trees (1pt).

14. If you are managing an area for wild turkey, then would it be best to have soft edges or hard edges between fields and forests? Why? **2 pts**
Soft edges (1pt). Soft edges provide additional food and cover for wildlife. (1 pt)

Section IV: Short Answer

15. A mourning dove nests in a hanging basket on the porch of a small hotel. Scat begins to accumulate underneath the nest, so staff decide to remove the nest and eggs. This action is a violation of what piece of wildlife legislation? When is it legal to remove a bird nest? **2 pts**
Migratory Bird Treaty Act (1pt); It is legal to remove the nest when it is no longer occupied (1pt)

16. Name 3 reasons for species rarity: **3pts**

a. Habitat loss and degradation
b. Invasive species and competition
c. Habitat specificity
d. Low reproductive output
e. Over exploitation and persecution
f. Disease

17. When hunting, what is the difference between a bag limit and a possession limit? **2 pts**

The bag limit is defined as the maximum number of a given species that a person may legally take in a single day. The related possession limit is the number of daily limits allowed to be kept in possession.

18. Why is it important to maintain bag limits on harvested species? **2 pts**

Bag limits are important tools to prevent the overharvest of game species.

---

19. Describe the difference between a pathogen and a vector. Are blacklegged ticks a pathogen or vector for Lyme disease? **3 pts**

A vector is any agent (animal, or microorganism) that carries and transmits an infectious pathogen into another living organism (2 pts). Ticks are a vector (1 pt).

Section VI: Long Answer

20. Compare and contrast biological carrying capacity versus cultural carrying capacity. In a suburban North American landscape, which would likely be higher for animals such as black bears? **5 pts**

The carrying capacity of a biological species in an environment is the maximum population size of the species that the environment can sustain indefinitely (2 pts). In contrast, cultural carrying capacity is the maximum number of individuals of a species that the human population will tolerate (2pts). Often, the biological carrying capacity for large mammals like black bears is higher than the cultural carrying capacity (1 pt).

21. Define genetic diversity and species diversity. Why is it important for wildlife managers to maintain these types of diversity? **4pts**

Genetic diversity is the total number of genes in a population (1 pt) while species diversity is a combination of species richness and evenness (1 pt). It is important to have a genetically diverse wildlife population because these populations have a greater chance of adapting to changing environments. Species diversity helps boost ecosystem productivity. (2 pts)

22. What is whitenose syndrome, and how does whitenose syndrome affect hibernating bats? **3 pts**

Whitenose syndrome is a cold-loving fungus that infects bats (1 pt) and causes them to wake up multiple times during hibernation. This, in turn, often causes the bats to starve and die. (2 pts)

23. Emerald ash borer is native to Asia, and its larvae feed off of ash (*Fraxinus* sp.) trees in North America, causing the trees to die. Ash trees are important for lumber and for native wildlife. Is emerald ash borer better classified as an exotic or invasive species? Explain why. **4 pts**

It is an invasive species. (1 pt). Exotic species are non-native species which have been introduced to a new area. Invasive species are exotic species which cause biological, economic, or human-health related harm. Because emerald ash borer kills native tree species, it is best classified as an invasive species. (3 pts)

24. Could wildlife like woodpeckers benefit in the short-term with the loss of ash trees? Why or why not? **2pts**

Yes (1 pt). In the short-term, woodpeckers can benefit from a new food source (larvae) and from creation of snags. (1 pt).

Section VII: Identification

25. Using the key provided, identify the 3 labeled skulls and identify its feeding strategy: **2 pts each**

a. Skull A: Common muskrat (2 pts)

b. What is the feeding strategy for Skull A? Herbivore (2 pts)

c. Skull B Gray fox (2 pts)

d. What is the feeding strategy for Skull B? Omnivore (2 pts)

e. Skull C Raccoon (2 pts)

f. What is the feeding strategy for Skull C? Omnivore (2 pts)

26. Using the provided field guides, identify the following organisms and answer the associated questions.

a. What is the scientific name of this animal *Hyla gratiosa* **1pt (barking treefrog picture)**

b. Is this a male or female? Either/Don't know (or something similar). Reason: Sexes are similar **2pts (red-shouldered hawk mount)**

c. What is the principal food item for this animal? Toads **1pt (eastern hognose snake picture)**

d. If you had to conduct surveys for this organism, what habitat would you expect to find it within? Open fields and pastures, meadows, prairies, marsh edges **1pt (eastern meadowlark mount)**

e. What is the Family for this animal? Anatidae **1pt American black duck mount**

f. What is the common name of this animal? **Delmarva Fox Squirrel** **1pt**

g. What is the litter size? **1-12** **1pt Coypu mount**

27. Identify specimens h-j from the tracks provided. **1 pt each**

h. Specimen H Opossum

i. Specimen I Striped skunk

j. Specimen J Eastern cottontail

28. Age deer jawbones K-M. Circle the correct answer. **1 pt each**

a) The age of the deer from jawbone K.	½	1 ½	2 ½+
b) The age of the deer from jawbone L.	½	1 ½	2 ½+
c) The age of the deer from jawbone M.	½	1 ½	2 ½+