**Characteristics & Diversity Of Birds** (p. 784 – 792)

**I. Key Characteristics Of Birds**

**1. Birds belong to the vertebrate class of \_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

**2.** **Circle the correct characteristics of birds.** *(Circle all that apply.)*

Teeth : Present Not present

Tail : Large Reduced In Size

Eggs : Amniotic Unshelled

Scales : Present Modified Not present

Flight : All capable None capable Some capable

**3. What are bird feathers?** *(Compared to reptilian scales.)*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**4. Differentiate between contour feathers and down feathers.**

Contour Feathers : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Down Feathers : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**5. Define the term preen gland.**

Preen Gland –

**6. List two other functions of feathers, besides flight, waterproofing, and insulation.**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**7. List two adaptations that birds possess that enable them to fly successfully.**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**8. Which type of metabolism do birds exhibit?**

Circle One : Endothermic Ectothermic

**9.** **What type of heart do birds have?**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**10. What type of blood circulation do birds possess?**

Circle One : Single-Loop Circulation Double-Loop Circulation

**11. Circle the letter of the sentence that is false concerning bird respiration.**

a. Birds possess one-way air flow in their lungs (similar to fish gills).

b. Air sacs are connected to bird lungs to enable one-way air flow.

c. Oxygen and carbon dioxide are exchanged in bird air sacs.

d. Bird lungs are exposed to air that is almost fully oxygenated.

**II. Bald Eagle** *(Up Close Section p. 788 – 789)*

**1.** **Match each eagle anatomical term with the correct definitions.**

1. \_\_\_\_\_\_\_\_ Talon A. 1st chamber that breaks down foods with acids.

2. \_\_\_\_\_\_\_\_ Eyes B. 2nd of all vertebrates when comparing size to body size.

3. \_\_\_\_\_\_\_\_ Beak C. Excretory organ that converts wastes to uric acid.

4. \_\_\_\_\_\_\_\_ Brain D. 2nd chamber that grinds up and crushes food.

5. \_\_\_\_\_\_\_\_ Crop E. Used to snatch up fish and other prey.

6. \_\_\_\_\_\_\_\_ Stomach F. Food storage site at the lower end of the esophagus.

7. \_\_\_\_\_\_\_\_ Gizzard G. Identifies prey from great distances.

8. \_\_\_\_\_\_\_\_ Cloaca H. Used to tear apart prey; then swallowed whole.

**III. Adaptations Of Birds**

**1. Bird diets can be determined by examining bird beaks, legs, and feet.**

Circle One : True False

**2. Match each bird with the correct beak adaptations.**

1. \_\_\_\_\_\_\_\_ Birds Of Prey A. Strong, chisel-like (*drilling*)

2. \_\_\_\_\_\_\_\_ Ducks B. Short, thick (*seeds*) or Long, slender (*insects*)

3. \_\_\_\_\_\_\_\_ Hummingbirds C. Long, flattened (*sieving*)

4. \_\_\_\_\_\_\_\_ Long-legged waders D. Thin, slightly curved (*probing*)

5. \_\_\_\_\_\_\_\_ Parrots E. Short, stout, hooked (*cracking, tearing*)

6. \_\_\_\_\_\_\_\_ Songbirds F. Curved, pointed (*tearing*)

7. \_\_\_\_\_\_\_\_ Woodpeckers G. Long, slender, spear-shaped (*fishing*)

**3. Match each bird with the correct foot adaptations.**

1. \_\_\_\_\_\_\_\_ Birds Of Prey A. Strong toes; 2 forward, 2 back (*climbing, grasping*)

2. \_\_\_\_\_\_\_\_ Ducks B. One toe points backward (*perching*)

3. \_\_\_\_\_\_\_\_ Hummingbirds C. Long legs, toes spread out (*wading*)

4. \_\_\_\_\_\_\_\_ Long-legged waders D. Very small; cannot walk on ground (*hovering*)

5. \_\_\_\_\_\_\_\_ Parrots E. Powerful with curved talons (*grasping, seizing*)

6. \_\_\_\_\_\_\_\_ Songbirds F. 3 toes linked by webbing (*swimming*)

7. \_\_\_\_\_\_\_\_ Woodpeckers G. 2 toes pointed forward, 2 back (*grasping only*)