**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*)