Test Prep Pretest

1. c
2. d
3. a
4. c
5. b
6. d
7. b
8. c
9. gills
10. scales
11. pulmonary veins
12. endoskeleton
13. lungs
14. cartilage
15. gills, kidneys (in either order)
16. tentacle
17. countercurrent flow
18. In countercurrent flow, water passing across the gills and blood circulating through the capillaries in the gills flow in opposite directions. This ensures that oxygen diffuses into the blood over the entire length of the capillaries in the gills.
19. Sound causes the tympanic membrane to vibrate. These vibrations are sent to the inner ear through a tiny bone. Ciliated sensory cells in the inner ear detect the vibrations and the frog hears sounds.
20. Most lampreys are parasites that feed on their host's blood. Hagfishes are scavengers of dead and dying animals on the ocean bottom.
21. The fish uses this system to perceive its position and rate of movement and to detect objects in the water.
22. Amphibians have pulmonary veins. Having these blood vessels allows the heart to pump oxygen-rich blood directly from the heart to the body. Thus, the blood moves at higher pressure and speed than it does in a fish.
23. Fertilization in salamanders is usually external. In species with internal fertilization, the female picks up a sperm packet that has been deposited by the male and places it in her body. In caecilians, the male deposits sperm directly into the female's body.
24. Females release their eggs into the water, where the eggs are fertilized by the male's sperm. The eggs hatch into swimming tadpoles that breathe with gills.

Quiz

SECTION: THE FISH BODY

1. b
2. e
3. a
4. f
5. c
6. d
7. b
8. d
9. a
10. b

SECTION: GROUPS OF FISHES

1. d
2. b
3. f
4. e
5. a
6. c
7. b
8. a
9. c
10. d

SECTION: THE AMPHIBIAN BODY

1. d
2. b
3. e
4. f
5. a
6. c
7. d
8. a
9. a
10. c

SECTION: GROUPS OF AMPHIBIANS

1. f
2. a
3. c
4. e
5. b
6. d
7. c
8. b
9. d
10. a

Chapter Test (Basic)

1. F
2. F
3. F
4. T
5. T
6. c
7. e
8. d
9. a
10. b
11. c
12. a
13. a
14. b
15. c
16. b
17. a
18. caecilians
19. anurans
20. double-loop, cutaneous
21. single-loop
22. salamanders
23. gill filaments

Chapter Test (General)

1. b
2. d
3. g
4. c
5. f
6. e
11. c
12. d
13. c
14. c
15. a
16. b

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7. a
8. d
9. a
10. d
17. c
18. b
19. a
20. d

Chapter Test (Advanced)

1. e
2. d
3. a
4. c
5. b
6. f
7. d
8. b
9. d
10. c
11. c
12. a
13. muscles, opercula
14. cutaneous
15. lampreys, hagfishes (in either order)
16. cloacal
17. scales
18. pulmonary
19. metamorphosis
20. kidneys
21. Caecilians do not have legs. They are adapted to burrowing.
22. Mucous glands in the skin keep the skin moist. The moist surface is necessary for cutaneous respiration.
23. The operculum, or gill cover, permits a bony fish to pump water over the gills, even when the fish is not swimming.
24. The caudal fin thrusts from side to side to propel the fish forward. The dorsal fins prevent the fish from rolling over as it swims. The pectoral fins assist the fish in going up or down, turning sharply, and stopping quickly.
25. Oxygen-poor blood from the body enters the right atrium. Oxygen-rich blood carried from the lungs by the pulmonary veins enters the left atrium. The blood in both atria enters the ventricle, which pumps the blood to the lungs and the body. Oxygen-poor blood tends to go to the lungs. Oxygen-rich blood tends to go to the body.

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