

AMPHIBIAN QUESTIONS  
(Chapter 42 pp 819-832)

NAME \_\_\_\_\_

MATCH THE WORDS FROM THE WORD BANK WITH THEIR DEFINITION:

TADPOLE	PULMONARY	MESENTERY	AMPLEXUS	URODELA	APODA	ANURA
VENT	METAMORPHOSIS	NICTITATING MEMBRANE	TYMPANIC MEMBRANE			

- \_\_\_\_\_ Order of tail-less amphibians that includes frogs and toads
- \_\_\_\_\_ Order of amphibians with tails that includes salamanders and newts
- \_\_\_\_\_ Order of leg-less amphibians that includes caecelians
- \_\_\_\_\_ Exit opening shared by the digestive, excretory, and reproductive body systems
- \_\_\_\_\_ The eardrum
- \_\_\_\_\_ Transparent movable membrane that covers and protects the eyes when swimming under water
- \_\_\_\_\_ Fan-like membrane that hold the internal organs in place
- \_\_\_\_\_ Amphibian larva
- \_\_\_\_\_ The firm embrace of the female frog by the male so that sperm and eggs are released at the same time and place
- \_\_\_\_\_ Term that refers to the lungs
- \_\_\_\_\_ Process of changing from a larva into an adult form

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USE NUMBERS FROM THE WORD BANK TO COMPLETE THE SENTENCE.

1	2	3	4	5
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Amphibians have a \_\_\_\_\_ chamber heart and a \_\_\_\_\_ loop circulatory system.

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MULTIPLE CHOICE. CIRCLE ALL THAT ARE TRUE.  
THERE MAY BE MORE THAN ONE CORRECT ANSWER.

Which of the following keep high oxygen and low oxygen blood from mixing in the frog's ventricle?

- A. The spongy irregular surface inside the heart
- B. The coordinated contractions of the atria
- C. A dividing wall to separate the ventricle into two equal halves.
- D. A valve in the conus arteriosus

It is thought that ancestors of amphibians left the water and began living on land  
\_\_\_\_\_. (Read carefully on this one!)

- A. to escape predators and gain access to more abundant food resources
- B. to travel to new homes when their ponds dried up
- C. to lay their eggs away from predators
- D. when an asteroid killed their food sources in the ocean

The forelimbs (front legs) in amphibians evolved from which structures in lobe-finned fishes?

- A. tail fin
- B. pectoral fins
- C. pelvic fins
- D. anal fin

Amphibians lay eggs in water or other moist places primarily because the eggs \_\_\_\_\_

- A. need oxygen from water
- B. are not laid in nests
- C. do not have a shell to keep them from drying out
- D. need protection from predators

Metamorphosis is controlled by a hormone called \_\_\_\_\_.

- A. insulin
- B. glucagon
- C. thyroxine
- D. bile

Salamanders differ from frogs in that they have \_\_\_\_\_ and frogs don't.

- A. an aquatic larva
- B. four limbs
- C. moist skin
- D. a tail

The frog's ventricle pumps \_\_\_\_\_

- A. only oxygenated blood
- B. only deoxygenated blood
- C. only blood going to the lungs
- D. both oxygenated and deoxygenated blood

TADPOLES release their nitrogen waste in the form of \_\_\_\_\_.

- A. urea
- B. uric acid
- C. ammonia
- D. none of these; frogs don't make nitrogen waste

The frog's tympanic membranes are its \_\_\_\_\_.

- A. eardrums
- B. mouth parts
- C. eyelids
- D. coverings for the gills

Which of the following is TRUE about reproduction in frogs?

- A. Frogs have internal fertilization and direct development.
- B. Amplexus increases the chances for external fertilization.
- C. Eggs are coated with a jelly-like material but have no shell or multicellular membranes.
- D. The aquatic larvae undergo metamorphosis to become a terrestrial adult

Which of the following is TRUE about respiration in frogs?

- A. Mucous glands in a frog help to keep the skin moist for gas exchange
- B. Gas exchange with lungs is called pulmonary respiration
- C. Gas exchange through the skin is called cutaneous respiration.
- D. Tadpoles breathe with lungs.
- E. Frogs push air into their lungs by using positive pressure breathing.

Amplexus is important for \_\_\_\_\_ in frogs.

- A. digestion
- B. excretion of nitrogen waste
- C. reproduction
- D. respiration

The columella in a frog plays a role in \_\_\_\_\_.

- A. breathing
- B. digesting food
- C. laying eggs
- D. hearing

The circulatory loop that carries deoxygenated blood to the lungs and returns oxygenated blood to the heart is the \_\_\_\_\_ circulation.

- A. systemic
- B. pulmonary
- C. renal
- D. hepatic

The duodenum and ileum are parts of a frog's \_\_\_\_\_.

- A. brain
- B. small intestine
- C. large intestine
- D. excretory system

Which of the following body systems use the VENT as an exit?

- A. digestive
- B. excretory
- C. respiratory
- D. reproductive
- E. endocrine

TRUE OR FALSE

Circle T if the statement is TRUE; Circle F if the statement is FALSE.

Make changes to the FALSE statements to make them TRUE.

- T     F     Adult frogs excrete nitrogen waste as ammonia to conserve water.
- T     F     In a frog heart, blood moves from the sinus venosus into the right atrium.
- T     F     The cardiac sphincter muscle controls the movement of food from stomach into small intestine.
- T     F     During dry periods water can be reabsorbed from urine in the bladder of many terrestrial amphibians.

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Look on page 821 in your book and list 5 characteristics of AMPHIBIANS.

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The drawings below represent the stages in the life cycle of a frog.

Put them in order. The 1<sup>st</sup> one is done for you.

