

BIOL 107
Exam 4 and Final

The questions on exam #4 will come from either The Biology Place or the Campbell CD ROM (the same questions are available on the Campbell web site). [Hint: more questions will come from Campbell]

75% of the questions on the cumulative final will come from the first three exams and the last quarter will be based on the material since Exam #3 (similar questions to Exam #4 but not identical).

The following are sample questions from the Campbell CD ROM to help you prepare for Exam #4. Some, but not all, will be on the exam.

Chapter 45: Chemical signals

1. Every time you eat a cookie or candy bar, your blood sugar increases.

This triggers an increase in the hormone

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- b. epinephrine.
- c. adrenocorticotropin (ACTH).
- d. glucagon.
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- b. growth
- c. her menstrual cycle
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Chapter 46: Reproduction

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- a. They trigger premature ovulation, before an egg is mature.
- b. They cause the lining of the uterus to be sloughed off.
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Chapter 47: Animal Development

1. Cells relocated from the dorsal lip of an amphibian embryo to an abnormal position result in the development of a second notochord at the graft location. This is an example of
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1. A fish detects vibrations in the water around it by means of its lateral lines, rows of sensory receptors along each side of the body. Based on what you know about sensory receptors, the lateral line receptors are probably which of the following?

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- c. chemoreceptors
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2. The brain determines the loudness of a sound from

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- b. the rate of nerve impulses received.
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Chapter 48: The Nervous System

1. Which of the following maintains resting potential--the difference in electrical charge inside and outside a neuron membrane that enables the cell to transmit a signal?
 - a. charges that pull sodium and potassium through the membrane
 - b. opening of sodium and potassium channels in the membrane.
 - c. the myelin sheath, which prevents ions from entering or leaving.
 - d. transport and leakage of sodium and potassium into and out of the cell
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