

# Physio ex 6 essay



**ASSIGN  
BUSTER**

Exercise 6: Cardiovascular Physiology: Activity 3: Examining the Effect of Temperature on Heart Rate Lab Report Pre-lab Quiz Results You scored 75% by answering 3 out of 4 questions correctly. 1. Organisms that usually maintain the same internal body temperature in spite of environmental temperature changes are You correctly answered: c. homeothermic. 2. The general name for the process that maintains the internal body temperature in humans is You correctly answered: a. homeostasis. 3. The electrolytes in a Ringer's solution are required to

Your answer : a. increase heart rate. Correct answer: b. provide for autorhythmicity. 4. An internal body temperature that is above the normal range is You correctly answered: b. hyperthermic. 03/20/13 page 1

Experiment Results Predict Question: Predict Question 1: What effect will decreasing the temperature of the Ringer's solution have on the heart rate of the frog? Your answer : b. decrease in heart rate Predict Question 2: What effect will increasing the temperature of the Ringer's solution have on the heart rate of the frog? Your answer : c. ncrease in heart rate Stop & Think Questions: What effect do you think a fever of 104°F would have on heart rate? You correctly answered: c. increase in heart rate Experiment Data:

Solution 23°C Ringer's 5°C Ringer's 32°C Ringer's Heart Rate 59 49 68

03/20/13 page 2 Post-lab Quiz Results You scored 75% by answering 3 out of 4 questions correctly. 1. In the 5°C Ringer's solution, the frog heart You correctly answered: c. beat slower than baseline. 2. In the 32°C Ringer's solution, the frog heart You correctly answered: b. beat faster than baseline. . If the human heart were experiencing hypothermia, what do you think would be the effect on heart rate? You correctly answered: c. a

decrease in heart rate 4. Without the Ringer's solution Your answer: a. the heart would beat very slowly. Correct answer: d. spontaneous cardiac action potentials would not occur. 03/20/13 page 3 Review Sheet Results 1. Explain the effect that decreasing the temperature had on the frog heart. How do you think the human heart would respond? How well did the results compare with your prediction? Your answer:

This prediction proved correct in the experiment. 2. Describe why Ringer's solution is required to maintain heart contractions. Your answer: Ringer's solution contains all the ions, pH, glucose, ATP need to keep the heart beating. 3. Explain the effect that increasing the temperature had on the frog heart. How do you think the human heart would respond? How well did the results compare with your prediction? Your answer: This prediction also proved to be correct after reviewing the experiment results. The human would most likely have the same outcome. 03/20/13 page 4