Student-Proposed Essay Questions:
EXAM III

Animal Homeostasis

1. Describe an example of homeostatic regulation in the human body. How does it maintain a balance when there is an increase or decrease in a variable in the system? Is it an example of positive or negative feedback?

Animal Tissues

2. Describe the different intercellular junctions, how they are constructed, what they do, and a location they might be.

3. Explain the structure of two animal tissue types and describe how their form fits their function.

Animal Nutrition

4. Compare and contrast two forms of feeding.

5. Describe the method of keeping blood sugar levels within homeostatic limits utilizing the hormones insulin and glucagon in humans.

6. Compare and contrast digestive functions in a gastrovascular cavity vs. an alimentary canal, and give examples to illustrate your answer.

7. Explain the important homeostatic roles of the Pancreas and Liver in digestion.

Animal Circulation

8. Explain the difference between an open and closed circulatory system and the advantages/disadvantages of each to the animals that have them, using examples.

9. Explain the mechanisms that keep blood traveling through a closed circulatory system.

10. List and describe the form and functions of each of the four layers in the wall of the human alimentary canal. Be sure to include such features as tissue types (4) and cell structure and how these specializations contribute to function.

Additional questions for review:

Compare intercellular digestion and extracellular digestion using specific organisms as examples.
Explain where and how carbohydrates, proteins, and fats are broken down into monomers in the alimentary canal.

Describe the various muscular, skeletal and other tissue interactions and processes that enable blood to circulate throughout a mammalian body such as a human.