

Study Guide

Homeostasis

Define the following terms:

- Independent variable
- Dependent variable
- Direct graphical relationship
- Indirect graphical relationship
- Homeostasis
- Steady state
- Negative feedback
- Positive feedback
- Acclimatization
- Stress proteins

Study Questions

1. Describe the different types of graphical relationships and provide an example for each.
2. Define homeostasis and explain why it is important.
3. What is steady state? How is this different from homeostasis?
4. Describe the components of a feedback control system.
5. Describe negative feedback and provide three detailed examples.
6. Describe positive feedback and provide two detailed examples.
7. How does exercise pose a challenge to homeostasis? How does the body handle this challenge?
8. Explain the significance of physiological adaptations. Provide at least 3 examples.
9. What are the functions of stress proteins?
10. Thoroughly describe the process of protein synthesis. How is this process related to homeostasis?