

Answer all 4 questions (each 25%)

1. For skeletal muscle, how is its force developed and controlled? Describe with examples when part(s) of the system is impaired in function leading to muscle weakness.
2. What is the main function of the heart? How is this function regulated under physiological conditions? Explain why pulmonary edema often develops in the case of a failing heart.
3. Homeostasis is the most important concept in physiology. Use the respiratory system to illustrate your knowledge on this. Discuss how the parameters you cited may temporarily deviate from normal under physiological conditions.
4. How is our body temperature regulated? In cases when it deviates from normal (chill and fever), what is changed in the system? Discuss the biological advantages and disadvantages of fever.
