

Choose five out of the following six questions (20% each)

1. List the sequence of events that occur between the entry of a sound wave into the external auditory canal and the firing of action potentials in the cochlear nerve.
2. Describe how hypophysiotropic hormones are controlled to maintain homeostasis using one specific hormone of your choice as an example.
3. Why does a soldier faint when he stands at attention for a long period on a very hot day. Explain the changes in his cardiovascular system.
4. Explain the function of pulmonary circulation and its regulation mechanism.
5. Explain the different mechanisms of polyuria (多尿) in patients with diabetes mellitus (糖尿病) and in normal human after drinking a bulk of water.
6. Describe the cephalic, gastric and intestinal phase stimuli that stimulate or inhibit acid secretion by the stomach.