

每題10分

1. Describe the importance of hypothalamus in controlling the autonomic nerve system.
2. Explain the interactions of  $P_{CO_2}$ ,  $P_{O_2}$ , and arterial blood pH.
3. Demonstrate the following items briefly:
  - a) acid back diffusion
  - b) gastric mucosal cytoprotection
  - c) alkaline tide
  - d) vagovagal reflex
  - e) migrating motility complex
4. Illustrate the formations of a platelet and blood clotting.
5. Describe the mechanisms that contribute to renal autoregulation.
6. What are the miniature endplate potential (mepp), the endplate potential (epp) and the muscle action potential? What do d-tubocurarine and succinylcholine do to these potentials?
7. What are the effects of norepinephrine or sympathetic stimulation upon inotropism and chronotropism at various sites in the heart?
8. Define glucocorticoid and mineralocorticoid. What functional roles do they play?
9. Define the following terms: passive diffusion, facilitated diffusion, active transport and pinocytosis.
10. What are the major causes of arrhythmia production?