

所別：生命科學系碩士班 不分組 科目：動物生理學

Animal Physiology (動物生理學)

1. Define the term "hormones". Explain the mechanism of action of (a) androgen and (b) luteinizing hormone in males. (hint: steroidal hormone and protein hormone; 15%)
2. Define the term "obesity". Explain how (a) leptin and (b) neuropeptide Y help to regulate the body weight. (15%)
3. Define the term "hypertension". Explain how rennin-angiotensin-aldosterone system helps to regulate (a) blood flow to kidneys and (b) blood pressure. (15%)
4. Define the term "action potential". Compare the effects of (a) sympathetic and (b) parasympathetic stimulation on the cardiovascular system and digestive system. (15%)
5. Define the term "Bohr effect". Explain how changes in (a) pH, (b) 2, 3-DPG (2, 3-diphosphoglyceric acid), and (c) temperature affect oxygen transport. (20%)
6. Define the term "monoclonal antibodies". Compare active immunity with passive immunity according to (a) the source of antibodies, (b) time to develop resistance, and (c) duration of resistance. (20%)

參考用