

94 學年度\_\_\_\_\_生命科學院\_\_\_\_\_甲組\_\_\_\_\_碩士班入學考試

科目\_\_\_\_\_生理學\_\_\_\_\_科目代碼\_\_\_\_\_0803\_\_\_\_\_共\_\_\_\_\_1\_\_\_\_\_頁第\_\_\_\_\_1\_\_\_\_\_頁 \*請在試卷【答案卷】內作答

1. Describe the steps of oogenesis when fertilization occurs and when it does not occur. Why are polar bodies produced. (15%)
2. Compare and contrast the metabolic effects of thyroxine and growth hormone. (15%)
3. Explain the function of bicarbonate in pancreatic juice. How many peptic ulcers in the duodenum be produced? (15%)
4. Explain how countercurrent multiplier system works and discuss its functional significance. (15%)
5. How would an increase in the red blood cell content of 2,3-DPG affect the  $P_{O_2}$  of venous blood? Explain your answer. (10%)
6. Describe the nature of passive immunity and explain how antitoxins are produced and used. (10%)
7. Explain what is meant by lateral inhibition and give examples of its effect in one sensory system. (10%)
8. Explain how light affects the function of the pineal gland. What is the relationship between pineal gland function and circadian rhythms? (10%)