



國立臺灣海洋大學一〇〇學年度研究所碩士班暨碩士在職專班入學考試試題

考試科目：普通生物學

系所名稱：水產養殖學系碩士班養殖科學組、水產養殖學系碩士班生命科學組

1.答案以橫式由左至右書寫。2.請依題號順序作答。

一、解釋名詞：(18%；每題3分)/非單字或字詞翻譯

- | | |
|---------------------------|-------------------|
| 01. biofilm | 02. biodiversity |
| 03. niche | 04. endosymbiosis |
| 05. antibiotic resistance | 06. microflora |

二、簡答題：(15%)

1. Please describe and provide examples of prezygotic and postzygotic reproductive barriers.(9%)
2. Please list the three major threats to biodiversity and give an example of each.(6%)

三、問答題：(67%)

1. Please in detail describe the function and output of three metabolic stages of cellular respiration. (15%)
2. Please explain how vertebrates maintain the blood glucose homeostasis by two antagonistic hormones secreted by different cell types of pancreas. (12%)
3. Please describe the production and release of which six major “anterior pituitary hormones” controlled by hypothalamus and list the main target organ or cells of these pituitary hormones. (6%)
4. Please describe the lactose operon and tryptophan operon regulation mechanism. (20%)
5. Please describe the possible methods for virus detection. (14%)