

國立中央大學100學年度碩士班考試入學試題卷

所別：系統生物與生物資訊研究所碩士班 不分組(一般生) 科目：生物化學 共 1 頁 第 1 頁  
本科考試禁用計算器 \*請在試卷答案卷(卡)內作答

1. What is the influence of ionic strength on protein solubility and DNA melting temperature? Please also explain the mechanism. 20%
2. What are the functions of the C-terminal tail of RNA polymerase II? 10 %
3. What is isoelectric point? 5%
4. Please draw a typical shuttle vector map. 10%
5. What is the function of 2', 3'-dideoxynucleotide in Sanger's chain termination method? Please also explain the mechanism. 5%
6. Please write any two discoveries or contributions of winners who were awarded the Nobel Prize in Physiology or Medicine within these 5 years (2006-2010). 8%
7. How cells obtain energy from food? 15%
8. What are signal transduction pathways and please give an example. 10%
9. Explain briefly the roles of GTP-binding proteins during translation process. 10%
10. What characteristic features define enzyme? (5%) Are all enzymes proteins? (2%)

參考用