

淡江大學 109 學年度碩士班招生考試試題

14-1

系別：化學學系

科目：普通生物學

考試日期：3月8日(星期日) 第2節

本試題共十大題，一頁

簡答題(每題十分) 請將答案寫於答案卷，記得註明題號

- 一、試述何謂 eukaryotic cells、prokaryotic cells，並且比較其差異。
- 二、試述何謂 competitive inhibitors、noncompetitive inhibitors，並且比較其差異。
- 三、試述何謂 Fungi。
- 四、試述何謂 biomass energy。
- 五、Describe the mechanism and purpose of feedback inhibition in a metabolic pathway.
- 六、What are the two stages of photosynthesis? What are the key products of each stage?
- 七、Explain how species' names follow a binominal nomenclature. Give an example.
- 八、Let's suppose a gene mutation changed the sixth codon from one that specifies lysine to a stop codon. How would this mutation affect transcription? How would it affect translation?
- 九、What are the key features of DNA that allow it to be replicated? How does the replication process affect the ability of DNA to store information?
- 十、Explain how restriction enzymes and DNA ligase are used to insert a gene into a plasmid.