

國立嘉義大學九十六學年度
微生物與免疫學系碩士班招生考試試題

科目：微生物與免疫學

一、申論題（85分）

1. Give the major characteristics and functions of the four major protein secretion pathways of procaryotes. How do the type III protein secretion pathway operate? (20分)
2. Describe the life cycle of the budding yeast *Saccharomyces cerevisiae*. How are ascomycetes important to humans? (15分)
3. Give five ways in which chemotherapeutic agents kill or damage bacterial pathogens. And briefly describe each mechanism of action. (20分)
4. Antibiotic resistance can be categorized in three types, please briefly describe each of them. And then try to describe the resistance mechanisms to β -lactams. (15分)
5. Please describe the importance and functions of dendritic cells in the immune defense. (15分)

二、解釋名詞（每題5分，共15分）

1. Inflammation
2. Helper T cell
3. Superantigen