

國立嘉義大學九十五學年度
生物藥學研究所碩士班招生考試試題

科目：細胞生物學

一、申論題：（每題 20 分，共 80 分）

1. Please outline the common features of basement membrane. What are the functions of the basement membrane of cells ?
2. There are about 30,000 genes in a human genome, but far than 30,000 proteins have been found, why? Please explain it.
3. Please design 2 experimental methods to approve an intracellular protein “A” for being involved in a drug-induced apoptosis.
4. Describe the principle of fluorescence resonance energy transfer (FRET), and design an experiment using FRET technique.

二、簡答題：（每題 5 分，共 20 分）

1. What is the function of the cholesterol in the plasma membrane?
2. What roles do metalloproteinases play in tumor formation?
3. Please compare the difference of gap junctions versus tight junction.
4. Define the term 'ligand'.