

1. 何謂抗體的 isotypes? 請列出三種 isotypes 並說明它們怎樣執行不同的免疫作用。(14%)
2. 破傷風菌第一次入侵傷口後，人體產生怎樣的免疫反應來抑制細菌，免於死亡? 請以從小到大的時間過程(分鐘，小時，天，星期)來說明。(16%)
3. 病毒入侵細胞後，在細胞質中製造病毒蛋白。免疫細胞怎樣偵測到這些細胞內的外來蛋白?(10%)
4. 免疫細胞以隨機方式產生抗原接受體，所以難免產生對抗自體的免疫細胞。這些對抗自體的免疫細胞受哪些機轉的調節而避免自體免疫疾病的結果?(12%)
5. 請說明 lepromatous leprosy 和 tuberculoid leprosy 的病程預後和免疫反應有何不同。(8%)
6. 請簡述單株抗體和多株血清抗體在其來源上的差別。如果使用於治療疾病，請比較其優劣。(10%)
7. Multiple choice. (單選 6% each)
 - (1) () The disease caused by blocking of receptors by autoantibody?
 - a. rheumatoid arthritis
 - b. diabetes mellitus
 - c. myasthenia gravis
 - d. thyrotoxicosis (Graves' disease)
 - (2) () People with which of the following HLA type have the tendency to develop ankylosing spondylitis?
 - a. DR4
 - b. B27
 - c. A1
 - d. None of the above

(背面仍有題目,請繼續作答)

- (3). () A and B stand for syngeneic (pure) mouse strains. Skin grafts from AxB F1 mice will successfully be accepted by:
- A strain
 - B strain
 - neither
 - both
- (4). () In a follow-up skin graft experiment, a AxB F1 female mouse mates with an A strain male mouse and gives birth to ten F2 mice. How many of these F2 mice do you expect to be successful skin donors for strain B mice?
- 0
 - 2-3
 - 7-8
 - 10
- (5). () Which of the following methods can be used to separate lymphocytes from granulocytes?
- Density gradients
 - Flow cytometry sorting
 - Magnetic beads
 - All of the above