

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

1. Please describe and compare the features of innate immunity and adaptive immunity. (20%)
2. What is the mechanism of vaccination? What is the function of an adjuvant in vaccination? (20%)
3. Please describe how the human body detects RNA virus infection to activate antiviral immune responses. (20%)
4. The human genome project has shown encoded gene numbers within 30,000. However, the human immune system can generate more than billions of different antibodies. Please describe molecular mechanisms of how the human immune system generates so many different antibodies in the body. (20%)
5. Please describe or define the following terms: (1) Pattern recognition receptor (5%); (2) Regulatory T cells (5%); (3) MHC restriction (5%); (4) IgE-mediated allergic disease (5%).