

※ 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. William G. Kaelin Jr., Sir Peter J. Ratcliffe and Gregg L. Semenza received the 2019 Nobel Prize in Physiology or Medicine. Please describe the content of their findings in the levels of organism and cell. (15%)
2. Please describe the mechanism of pulmonary surfactant in regulating alveolar volume. (10%)
3. Please describe the molecular mechanism of vasopressin/antidiuretic hormone for renal water reabsorption. (10%)
4. Which organs can produce androgens in our body? (10%)
5. Please describe the process of generation of allergic reactions. (15%)
6. Please describe the different types and functions of glial cells in CNS (central nervous system). (15%)
7. What is the open and close status of the heart valves during a heart cycle? (10%)
8. Please compare the action of water-soluble hormones and lipid-soluble hormones. (15%)

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