

※ 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. Yoshinori Ohsumi received the 2016 Nobel Prize in Physiology or Medicine. Please describe the importance of his findings. ....(10%)
2. Please compare the activation of G protein coupled receptors (GPCRs) and receptor tyrosine kinases (RTKs)? ....(10%)
3. Please describe four different gating mechanisms of channels. ....(10%)
4. What are the functions of cerebrospinal fluid (CSF)? ....(10%)
5. Please compare the regulatory mechanism for hormone release of anterior and posterior pituitary. ....(10%)
6. Please describe the components and structure of a sarcomere. ....(10%)
7. Please list four general mechanisms by which materials are exchanged across by the capillary wall. ....(10%)
8. Please explain the effect of Viagra<sup>®</sup> in the NO signaling. ....(10%)
9. What are anatomic dead space and physiologic dead space of the respiratory tract? ....(10%)
10. Which three filtration barriers are existing between capillary and Bowman space? ....(10%)

----- End of questions -----