

※ 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. Jeffrey C. Hall, Michael Rosbash and Michael W. Young received the 2017 Nobel Prize in Physiology or Medicine. Please describe the importance of their findings.(10%)
2. Please compare primary active transport and secondary active transport. (10%)
3. How does cell clean the neurotransmitters in synaptic cleft. (10%)
4. Contrast the causes of increased airway resistance in asthma, emphysema, and chronic bronchitis. (15%)
5. What are the consequences of the failure to digest lactose in the small intestine? (10%)
6. What is the effect of changing afferent and efferent arteriole resistance on glomerular filtration rate? (10%)
7. Please describe three types of diabetes mellitus. (15%)
8. Please briefly describe the following terms: (20%)
 - a. Countertransport(5%)
 - b. Excitatory postsynaptic potential (EPSP)(5%)
 - c. Myocardial infraction(5%)
 - d. Respiratory acidosis(5%)

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