

※ 考生請注意：本試題不可使用計算機

- 1、(A) What are the characteristics of stem cell? (10%)
(B) Please briefly describe the following terms of stem cells: (15%)
 - a. Totipotent stem cells
 - b. Pluripotent stem cells
 - c. Unipotent stem cells
 - d. Induced pluripotent stem cells (iPS)
- 2、What is the critical role of CD4+ helper T cells in AIDS? (15%)
- 3、Please describe the actions of calcium ion in the axon terminal of a motor neuron and the skeletal muscle cell for muscle cell contraction. (15%)
- 4、Please list three hormones/factors do the kidneys secrete in to the blood? What are the major functions of them? (15%)
- 5、Please draw and compare the pressure, velocity and total cross-sectional area changes of arteries, capillaries and veins. (15%)
- 6、Please name the two posterior pituitary hormones and describe their site of synthesis and mechanism of release. (15%)

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