

※ 考生請注意：本試題不可使用計算機

1. Please take examples to explain “mature cells can be reprogrammed to become pluripotent”. (20%)
2. Please describe (a) how to cut and paste DNA, (b) how to amplify DNA, and (c) how to know the sequence and related information of one specific DNA. (20%)
3. Please simply describe Southern blotting, Northern Blotting and Western blotting, and what differences among these blottings. (20%)
4. Your favorite protein is located inside the nucleus of mouse brain cells. How to confirm about statement *in vivo* using different methods? (20%)
5. After finishing the human genome project, post-genome era is coming. Please simply describe “human genome project” and “post-genome era”. (20%)