

※ 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. What is the “Central dogma” theory? Is it possible for the reverse flow? If no, why? If yes, give an example. (20%)
2. What is epigenetics? Can it be inherited from cell to cell like genetic information? Give two examples of epigenetic regulation of gene expression. (20%)
3. Most organisms live according to the day-night 24 hours clock, the so-call “circadian rhythm”. How is circadian rhythm regulated? Can you think of any hormone in our body that is regulated by circadian rhythm? Give at least one example. (20%)
4. Taiwan will become an “aged society” since year 2018. Do you know how to define aged society? There are many health issues associated with aged society and some people think regenerative medicine can provide remedy. What is regenerative medicine? Please give an example of how to apply regenerative medicine in recuing our body function. (20%)
5. Life is very complicated and the study of it is even tougher. There are many different research areas in studying life. Which area of research do you like to learn in the graduate school? Explain your reason(s). (20%)