

本試題是否可以使用計算機:  可使用,  不可使用 (請命題老師勾選)

1. Robert Koch was awarded Nobel Prize in 1905 for discovering the cause of tuberculosis. One of his greatest contributions to biology is his method for propagating individual colonies of bacteria on plates, a technique that came to be called "cloning". Describe the "cloning technology" in different aspects, from bacterial cloning described by Robert Koch to different modern biomedical technologies. (20%)
2. Describe how RNA and DNA tumor viruses cause cancer. (20%)
3. Some bacteria are more resistant to UV light than other bacteria. Discuss two reasons why this might be the case. What experiments can you do to determine whether each of the two possibilities can be correct? (20%)
4. Discuss principles and advantages of using vaccinia virus and adenovirus as vectors for other vaccines. (20%)
5. An international research team was gathered to discuss how funding should be spent to eliminate human infectious disease. For this project, there is only enough funding to eliminate one disease. How would the scientists go about choosing the next disease to be eliminated from the planet? (20%)