

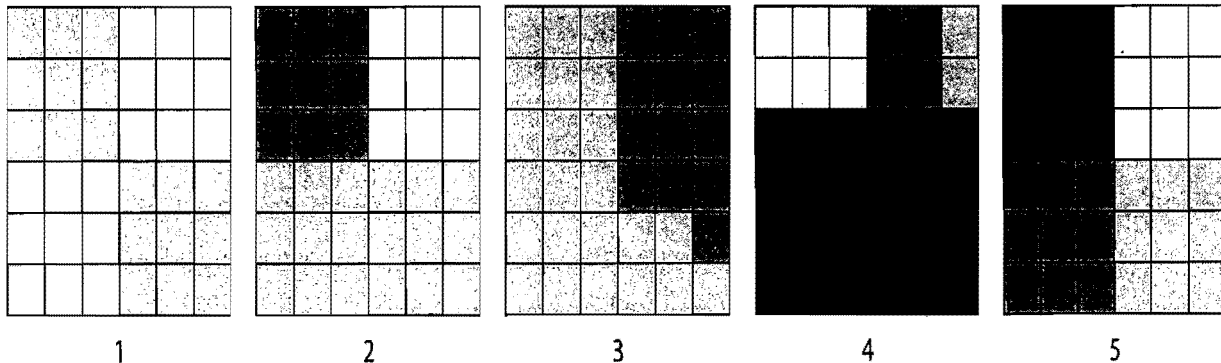
Short-answer questions (35%)

1. Describe (1) what is “Ecology”, and (2) how ecological studies can be conducted by different approaches (or methods), and (3) at which different levels? (12%)

2. Illustrates the population growth curve of single bacterium growing in a flask of ideal medium at optimum temperature over a 24-hour period? What is this kind of growth named? (8%)

3. Why is the soil in heavily logged tropical rain forests typically nutrient-poor? (5%)

4. Based on the biodiversity concept, which of the following block has the greatest diversity? Why? (5%)



5. Distinguish numerical vs. functional response of predators (5%)

Essay questions (45%)

6. Discuss (1) the possible biological interactions between a plant and the surrounding organisms, and explain (2) the importance of biological interactions in the study of biodiversity. (15%)

(背面仍有題目,請繼續作答)

系所組別： 生命科學系丙組

考試科目： 生態學

考試日期：0226 · 節次：2

7. From an ecological perspective to (1) describe the contribution and importance of mangroves to the marine ecosystem, and (2) explains your views toward the issue of “mangrove restoration” in Taiwan. (10%)

8. Discuss (1) how climate changes may negatively or positively impact different levels of life complexity covered in ecology; and (2) evaluate with your reasoning the overall effects of climate changes on global biodiversity. (20%)

Synthesis questions (20%)

9. During a field trip, an instructor touched a moth resting on a tree trunk. The moth raised its forewings to reveal large eyespots on its hind wings. The instructor asked her/his students why the moth lifted its wings. From a broad sense of ecological perspectives, propose your hypotheses and design experiments to test these ideas. (20%)