

九十三學年度 生科院甲組、生科院（結構生物學程）甲組 碩士班入學考試

科目 生物學 科號 0802、1102 共 1 頁第 1 頁 \*請在試卷【答案卷】內作答

一、 問答題（90%），共九題、每題十分

1. Define the primary, secondary, tertiary and quaternary structures of a protein.
2. Which organelles are common to both plant and animal cells, and which are unique to each.
3. Diagram the stages of mitosis. How does mitosis ensure that each daughter nucleus receives a complete set of chromosomes?
4. Explain the meaning of Mendel's Law of Segregation and Law of Independent Assortment. Under what circumstances does the Law of Independent Assortment apply? When is it violated?
5. Diagram and describe protein synthesis.
6. What is convergent evolution? Give two examples.
7. List and describe the different types of premating and postmating isolating mechanisms.
8. What hormone(s) are involved in leaf and fruit drop? In bud dormancy?
9. Define and give an example of biological magnification. What qualities are present in materials that undergo biological magnification? In what trophic level are the problems worst, and why?

二、 解釋名詞（10%）（每題兩分）

1. species
2. biodiversity
3. stem cell
4. coevolution
5. gene flow