國　立　清　華　大　學　命　題　紙

95 學年度__生命科學院、生命科學院醫學生物科技學程__系（所）__甲__組碩士班入學考試

科目____生物學___ 科目代碼__0802、1102__共___1__頁第___1__頁 *請在【答案卷卡】內作答

一、問答題（每題十分，共八十分）

1 List the similarities and the differences between prokaryotic and eukaryotic cell.

2. List the major macromolecules found in the living systems.

3. How do crossing over and independent assortment increase the genetic variability of a species?

4. Describe the sequence of hormonal events that would likely occur in your body during a frighteningly strong earthquake. Consider all the glands involved.

5. Compare the respiratory strategies of the following: a sponge, a lobster (an aquatic arthropod with gills), a cockroach, a fish, and an elephant.

6. Compare monocot and dicot seedling development. Make a list of five things they have in common and five ways they differ.

7. Provide four distinctions between true algae and "blue-green algae" (cyanobacteria).

8. Name three advantages that biological pesticides have over chemical pesticides.

二、解釋名詞（每題二分，共二十分）

1. mitochondrion

2. haploid

3. somatic cells

4. essential nutrients

5. peripheral nervous system

6. exoskeleton

7. acoelomates

8. eutrophication

9. biomass

10. survivorship curve