

注意事項：不必抄題，但須依題號依序作答。

1. Describe the role of calcium in nerve impulse & muscle contraction. (10%)
2. Describe the possible hormones secretion induced by a stressful stimuli (such as cold temperature) in mammalian animal. (10%)
3. Compare vision and hearing with respects to receptor type, transduction, amplification, transmission, and integration characteristics. (10%)
4. Give a diagram of an ovary and describe its change during a reproductive cycle of the human female. (10%)
5. Describe the responses of organisms to environmental change. (10%)
6. 試舉 2 例，說明植物細胞膜 Proton Pump 之功能 (10%)。
7. 進行遺傳工程實驗時，對於已知或未知基因常須進行 DNA sequencing，試列舉 5 點說明其目的。 (10%)。
8. 試從營養、構造、及生殖三方面，說明 Fungi 之特點 (10%)。
9. 繪簡圖 (使用英文名詞標示) 說明木本雙子葉植物莖之 Primary Growth 及 Secondary Growth 之變化 (10%)。
10. 繪簡圖 (使用英文名詞標示) 說明穀類種子內部構造，並說明其 Germination 之過程 (10%)。