

(作答時不必抄題，但須標明題號)

一、說明下列栽培技術的作法與用途：(12 分)

- (1) cold stratification
- (2) drip irrigation
- (3) seed priming

二、描述下列與植物形態相關的名詞：(16 分)

- (1) fibrous root system
- (2) adventitious bud
- (3) stolon
- (4) pistillate flower

三、解釋下列與植物生長與發育相關的名詞：(16 分)

- (1) photorespiration
- (2) cross-pollination
- (3) metaxenia
- (4) stenospemocarpy

四、在胡瓜生長初期，噴施下列植物生長調節劑 (growth regulators)，對花朵性別的表現有何影響？(6 分)

- (1) Indoleacetic acid
- (2) Gibberellic acid
- (3) Ethephon

五、請翻譯或說明下列英文句子的文意：(20 分)

- (1) The rooting of a cutting depends on auxin, carbohydrates, and the presence of rooting cofactors.
- (2) The high movement of nitrogen in the soil is due to the complete solubility of nitrates in the soil solution.
- (3) Apical dominance refers to the effect of the apical bud in inhibiting bud break below. Removal of the apical bud encourages lateral buds break.
- (4) Fruit trees normally consist of two parts, the rootstock and the scion.
- (5) Increasing plant population drastically reduces plant size and yield per plant, but the yields per unit area increase with plant population.

六、請舉一種木本園藝植物為例，說明同一種植物作為果樹、綠籬和行道樹時，在栽植密度和整枝修剪上有何差異？(15 分)

七、在一肥沃土壤上種植園藝作物，卻發生營養缺乏症；已知可能缺乏鉀、鈣、鎂、鐵等四種元素其中的一種。請問如何由缺乏症出現部位（老葉或新葉）以及土壤 pH 值初步判斷缺乏何種營養元素？並簡述如何確認之。(15 分)