

(作答時不必抄題，但須標明題號)

一、下列各題為成對的兩個專有名詞，請簡要解釋各名詞：(每小題4分，共20分)

- (1) Macronutrients vs. Micronutrients
- (2) Furrow irrigation vs. Sprinkler irrigation
- (3) Species vs. Ecotype
- (4) Hygroscopic water vs. Available water
- (5) Light compensation point vs. Carbon dioxide compensation point

二、解釋下列與植物構造有關的名詞，請說明兩個對應構造的相異之處。(每小題4分，共8分)

- (1) Superior ovary vs. Inferior ovary
- (2) Dehiscent fruit vs. Indehiscent fruit

三、簡要說明下列植物荷爾蒙 (Plant hormones) 的生理作用。(每小題4分，共12分)

- (1) Salicylic acid
- (2) Jasmonates
- (3) Ethylene

四、何謂病蟲害綜合防治 (Integrated pest management) (2分)? 請條列其實施原則及策略。(8分)

五、請寫出下列園藝作物學名的中文和英文名稱：(10分)

- (1) *Allium cepa* (2) *Ananas comosus* (3) *Anthurium andraeanum*
- (4) *Fragaria × ananassa* (5) *Lactuca sativa* (6) *Lycopersicon esculentum*
- (7) *Mangifera indica* (8) *Phalaenopsis hybrids* (9) *Prunus persica*
- (10) *Vitis vinifera*

六、請翻譯或說明下列英文句子的文意：(15分)

- (1) The six critical steps of fruit production are initiation of flower buds; flower open and pollination; fertilization followed by fruit set; removal in some cases of excess fruit; growth and development of the fruit; and finally fruit maturation, ripening, and harvest.
- (2) The vegetables grown for the consumption of their floral, leaf, or stem parts are not considered to be major caloric providers to human diets. Nevertheless, they do have considerable nutritive value, notably for their contribution of vitamins, minerals, and dietary fiber.
- (3) Greenhouse crops can be grouped into four broad categories. Cut flowers, potted or container crops, foliage plants, and bedding plants. Each category and the species within the category have specific cultural requirements that must be met in a greenhouse to produce plants of high quality.

七、目前「全球暖化」已經成為重大的課題，台灣尤其嚴重。請問在園藝作物生產作業上，有那些方式可以克服夏季高溫，確保作物生產及品質？(10分)

八、在2010年，台灣將舉辦「台北國際花卉博覽會」；這是台灣第一次正式獲得國際授權舉辦的國際園藝博覽會。請問您認為台灣園藝的資源、產業或技術有何特色可以展示給國內外參觀人士？試依果樹、蔬菜和花卉各舉例說明1-2項。(15分)