

國立嘉義大學九十五學年度
園藝學系碩士班招生考試試題

科目：專業英文

1. 試將下列英文翻譯成中文：(20分)

Fruit production is limited in any one season by the number of (1) flower buds that differentiate; (2) buds that bloom and proceed to anthesis; and (3) flowers that subsequently set and develop into mature fruits. The reasons for abscission of buds and flowers were discussed previously, but they are reiterated briefly as an introduction to the ontogeny of fruits. In pome and stone fruits, there are three waves of abscission of buds and flowers. The first drop takes place as buds begin to swell in late winter, if the winter has been too mild to satisfy the chilling requirement of buds. The second wave of abscission is that of unpollinated flowers just after full bloom. About ten days later a third wave consisting of pea-sized fruitlets occurs.

2. 試將下列英文翻譯成中文：(20分)

Perspectives on horticultural therapy in Australia

Human awareness of plants in Australia goes back 50,000 years when the aboriginal first began using plants to treat, clothe and feed themselves. The European influence came in 1778 with the First Fleet landing in New South Wales. Australia's earliest records of using **horticulture** for **therapy** and rehabilitation were in institutions for people with intellectual disabilities or who were incarcerated. Eventually, legislation created greater awareness in the government and community for the needs of persons with disabilities, and many worthwhile projects, programs and organizations were established or gained greater recognition. Horticultural **therapy** programs may be found in nursing homes, rehabilitation centers, adult training support services, hospitals, day centers, community centers and gardens, educational institutions, supported employment, and the prisons system. This article reviews the history and development of Australian **horticulture** as a **therapy** in the treatment of disabilities and social disadvantaged groups, and includes an overview of programs offered for special populations and of Australia's horticultural **therapy** associations. It also discusses opportunities for research, teaching and extension for horticultural **therapy** in Australia. (HortTechnology 10 (1) :18-23)

3. 請說明下列兩段文章之主要內容：(20分)

Despite the technological advances in the acquisition and processing of environmental data, the analysis and evaluation of the landscape still rely heavily on field investigation. This is especially so for problems involving small to medium-sized sites (several acres to several hundred acres) for which the resolution of secondary data sources, such as satellite imagery, soil maps, and standard topographic maps, is not well suited. Although these sources are helpful in understanding the regional context, the internal character of the typical site falls between the cracks, as it were.

For large problem areas we must, of course, rely mainly on secondary sources to gain a sense of the character of the landscape and its environmental setting. Inevitably, however, field is also necessary, but it must usually follow the examination of secondary sources and serve as a ground-truth exercise to test the validity of our initial ideas about the makeup and operation of the environment. Among the secondary sources, topographic contour maps are probably the most valuable.

4. Translation from English to Chinese：(20分)

Many criteria for judging maturity have been used or suggested, based on a variety of characteristics including：

- ◆ Time from flowering of planting (calendar date)；
- ◆ Accumulated heat units；
- ◆ Size and shape；
- ◆ Light transmission or reflection；
- ◆ Flesh firmness；
- ◆ Electrical conductance or resistance；
- ◆ Time to ripen.

To be practical, maturity tests should ideally be simple, rapid and readily applied in the field.

5. 試解釋下圖意義：(20分)

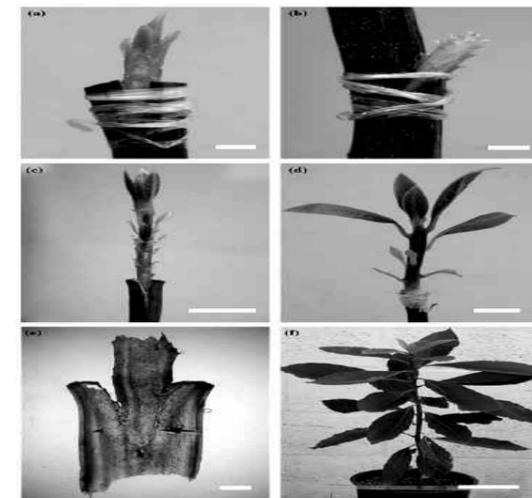


Figure 1. *In vitro*-derived avocado shoots grafted *ex vitro* onto rootstock seedling. (a) Scion insertion in top slit grafting (bar 2 mm); (b) scion insertion in side grafting (bar 2 mm); (c) shoot flushing from a scaly scion 4 weeks after grafting (bar 5 mm); (d) shoot flushing from a normal-appearing scion 5 weeks after grafting (bar 5 mm); (e) longitudinal section of graft union area (arrow indicates union of cambium tissue, bar 1 mm); (f) normal young plant of 'Hass' 10 weeks after flushing (bar 10 cm).