1. 請**舉例**說明園產加工對園藝產業發展的重要性。 (10 %)
2. 何謂「I.Q.F.」？請列舉三種適合製成以 I.Q.F.製成之蔬果加工品？ (5%)
3. 請**舉例**說明何謂「蔬果之輕度加工(minimal processing)」？有那些處理方法常用來保存輕度加工蔬果產品的品質？ (10%)
4. 何謂「低酸性罐頭食品(low acid canned foods)」？請寫出三種市售之低酸性蔬果罐頭產品。又，肉毒桿菌(*Clostridium botulinum*)與低酸性罐頭食品的殺菌有何關係？請詳述之。 (15%)
5. 請寫出**濃縮澄清**蘋果汁之加工流程及各製程所使用設備之名稱。 (15%，製程步驟間請以「→」符號銜接)
6. 園產品所含之部分酵素對產品在加工製造與貯藏時之品質影響甚鉅，請舉出三種園產品酵素，分別說明該酵素如何在加工或貯藏時影響產品的品質，並列舉改善的方法。 (15%)
7. 請閱讀下面這篇短文並回答問題： (共 30%)

Prunes are prepared for drying by cleaning with air blast and water sprays, followed by dipping in hot water. Whole prunes (pitted or unpitted) are dehydrated after perforation treatment. The fruits are then spread in a single layer on trays and dehydrated to about 18% moisture in forced-draft tunnel dehydrator. The drying process usually requires 24~36hr, depending on the size and solids content of the prunes. The tunnel is operated under 74°C dry bulb temperature, with the wet bulb 8°C lower than the dry bulb at the cool end.

Conventional dried prunes are sometimes dehydrated to low moisture in vacuum shelf drier. The finished low-moisture prunes contain less than 4.0% moisture. Because they are free-flowing and highly hygroscopic, low-moisture prunes require very careful handling and packaging.

a. 何謂「prune」？ (2%)
b. 原料經清洗後，「dipping in hot water」的目的何在？ (4%)
c. 原料在脫水加工前進行「perforation treatment」之目的為何？還有那些脫水園產品或蜜餞加工時也會進行類似處理？請試舉一例。 (4%)
d. 請依短文之敘述繪出以 tunnel dehydrator 脫水加工製造 prune 之簡圖，並在圖上註明所有加工條件。 (10%)
e. 為何「low-moisture prunes」需以「vacuum shelf drier」加工才能將水分含量降至 4.0%以下？ (4%)
f. 請說明「Low-moisture prunes」需要「very careful handling and packaging」的原因？包裝這類 low moisture 的園產品通常會採用那些方法？ (6%)