

1. How to identify organic compounds from the synergistic information afforded by the combination of mass, ultraviolet, infrared, and nuclear magnetic resonance spectra? (25 %)
2. How to apply genetic microarray, Polymerase chain reaction, and flow cytometry to the researches of natural products? Please state their basic designs and application. (25 %)
3. What are the significances of the following four HPLC detectors? (25 %)
 - a. UV
 - b. Photo Diode Array
 - c. RI
 - d. ELSD (Evaporative Light Scattering Detector).
4. How to evaluate the biologic functions of natural products? (25 %)