

# 國立嘉義大學九十三年學年度

## 生物資源學系碩士班招生考試試題

### 科目：專業英文

請將下列四篇文章翻譯成中文：

1. Your skin is not only the largest organ of your body, it also carries out several major functions, including protection, sensory response, formation of vitamin D, regulation of body temperature, and ridding the body of wastes. The most important function of the skin is protection. The skin forms a protective covering over the body that prevents physical and chemical injury. Some bacteria and other disease-causing organisms cannot pass through the skin as long as it is unbroken. Glands in the skin secrete fluids that can damage or destroy some bacteria. The skin also slows down water loss from body tissues. Specialized nerve cells in the skin detect and relay information to the brain, making the skin a sensory organ, too. Because of these cells, you are able to sense the softness of a cat, the sharpness of a pin, or the heat of a frying pan. ( 20% )
2. When a low place in the land fills with rainwater, snowmelt, or water from an overflowing stream, a lake or pond might form. Pond or lake water hardly moves. It contains more plant growth than flowing-water environments contain. Lakes are larger and deeper than ponds. They have more open water because most plant growth is limited to shallow areas along the shoreline. In fact, organisms found in the warm, sunlit waters of the shorelines often are similar to those found in ponds. If you were to dive to the bottom, you would discover few, if any, plants or algae growing. Colder temperatures and lower light levels limit the types of organisms that can live in deep lake waters. Floating in the warm, sunlit waters near the surface of freshwater lakes and ponds are microscopic algae, plants, and other organisms known as plankton. A pond is a small, shallow body of water. Because ponds are shallow, they are filled with animal and plant life. Sunlight usually penetrates to the bottom. The warm, sunlit water promotes the growth of plants and algae. In fact, many ponds are filled almost completely with plant material, so the only clear, open water is at the center. Because of the lush growth in pond environments, they tend to be high in nutrients. ( 20% )
3. Do people and plants have anything in common? You don't have leaves or roots, and a plant doesn't have a heart or a brain. Despite these differences, you are alike in many ways- you need water, oxygen, energy and food to grow. Like humans, plants also can reproduce and make similar copies of themselves. Although humans have only one type of reproduction, most plants can reproduce in two different ways. Sexual reproduction in

plants and animals requires the production of sex cells- usually called sperm and eggs- in reproductive organs. The offspring produced by sexual reproduction are genetically different from either parent organism. A second type of reproduction is called asexual reproduction. This type of reproduction does not require the production of sex cells. During asexual reproduction, one organism produces offspring that are genetically identical to it. Most plants have this type of reproduction, but humans and most other animals don't. ( 20% )

4. The opportunistic and sometimes obligate use of cavities and foliage as roosts frequently involves specialized behavioral and morphological adaptations of bats. The cranium and skeleton may be under strong selection pressures from a bat's roosting environment. Some bats have strongly flattened crania that facilitate access to the interior spaces of bamboo culm. Also, many bats have evolved specialized thumbs and feet for roosting. Species in some genera are especially adept at using their thumbs and claws for climbing among branches. By contrast, some foliage-roosting microchiropterans, are less agile in roosting situations and select relatively open sites for roosting that are relatively free of surrounding vegetation. The highly specialized thumb and footpads in some species make it possible for them to cling to the smooth upper surfaces of furled leaves. Similarly, the modifications of the foot and thumb pads of some groups facilitate entry and exit through small openings on smooth bamboo culm and allow them to cling to the interior of the culm cavity.

Some foliage roosting bats are well concealed in their roosting places by either real or apparent color. The reddish and yellowish coloration of some bats that roost in the foliage of deciduous trees may confer protection from predators. The greenish wings of *a special species* provide an effective camouflage in foliage. The so-called painted bats of the genus *Kerivoula* typically have long, thick, woolly pelage that ranges in color from yellow to bright orange and scarlet. Similarly, the pelage of other temperate and tropical plant-roosting bats are colored with hues of yellow, orange, and red, resembling fruits and leaves. The contrasting lighter colors around the head and neck of some megachiropterans suggests a type of countershading that may confer a certain degree of crypsis. Similarly, the mottled and woolly pelage of *Rhynconycteris naso*, which roosts in small groups on the exposed boles of tropical trees, may be of benefit by camouflaging these bats from potential predators. ( 40% )