

华中科技大学

二〇〇四年招收硕士研究生入学考试试题

考试科目: 动物学

适用专业: 生态学

(除画图题外, 所有答案都必须写在答题纸上, 写在试题上及草稿纸上无效, 考完后试题随答题纸交回)

一. 名词解释 (5x2)

1. Species
2. Cell cycle
3. Homeostasis
4. ovotestis 卵睾
5. parthenogenesis 孤雌生殖

二. 比较 (5x6)

1. SER 和 RER
2. Homocercal tail 和 heterocercal tail
3. oviparity 卵生, viviparity 胎生 和 ovoviviparity 卵胎生
4. Vestigial organ 痕迹器官 和 analogous organ 同功器官
5. Homoeothermic vertebrates 和 ectothermic vertebrates

三. 选择 (10x3)

1. Chordates are characterized by an
a. Endoskeleton, b. ectoskeleton, c. cartilage, d. bone
2. Land vertebrates respire using
a. skin, b. lungs, c. pharyngeal gill-slits, d. gills
3. The most species of sponges (Phylum Porifera) are
a. freshwater families, b. land terrestrial c. soil living d. marine.
4. Amebas belongs to
a. class Mastigophora, b. class Sarcodina, c. class

Sporozoan , d. class Ciliophora

5. The cnidarians are very simple aquatic animals with limited powers of movement. Their bodies are
a. bilaterally symmetrical, b. radically symmetrical, c. pentaradiate (five-rayed), d. none symmetrical
6. The cells of the body which are similarly specialized are known as
a. a system, b. an organ, c. a tissue, d. a clone
7. Different types of tissue co-operating with one another to perform a particular biologic function constitute
a. a system, b. an organ, c. a tissue, d. a clone
8. Epithelial tissues may function in
a. Protection, b. Absorption, c. Secretion, d. sensation.
9. The supporting skeleton of vertebrates is composed of
a. Cartilage, b. bone, c. adipose, d. elastic fibers.
10. The blood may be classified as a separate type of tissue or as one kind of
a. Epithelial tissue b. Muscle tissue, c. Nervous tissue, d. Connective tissue.

四. 问答 (75)

1. 简述软体动物门(Phylum Mollusca)的主要特征及其应用价值。(10)
2. 动物学研究的热点及前沿是什么? (20)
3. 你认为动物学研究中容易被应用和产业化的有哪些? (15)
4. 请设计一个详细的转基因动物的实验方案? (15)
5. 简述克隆羊的过程及其意义。(15)