

Cork Institute of Technology
Bachelor of Science (Honours) in Herbal Science – Stage 1
(NFQ – Level 8)
Summer 2007
Anatomy
(Time: 3 Hours)

Instructions

Answer FIVE questions only

All answers require a diagram of the relevant structure

Examiners: Dr. D. Corrigan
Mr. E. Walsh
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- Q1. (a) Describe the general features of epithelial tissue. **(5 marks)**
- (b) Describe the different types of connective tissues that can be found in the body (classification system). **(10 marks)**
- (c) List the types of and the main features of membranes. **(5 marks)**
- Q2. (a) List and describe the features of a typical vertebra. **(6 marks)**
- (b) Compare and contrast vertebrae from each region of the vertebral column in terms of their number, position, structure, articulation and flexibility. **(14 marks)**
- Q3. (a) Draw a diagram outlining the divisions of the nervous system. **(5 marks)**
- (b) Describe the features of the external and internal anatomy of the spinal cord. **(15 marks)**
- Q4. (a) What is the definition of a hormone and an endocrine gland? **(5 marks)**
- (b) List the main endocrine glands in the body and give a brief description of each including the hormones released. **(12 marks)**
- (c) Give a list of the principle classes of hormones in terms of their chemistry. **(3 marks)**

- Q5. (a) List the components of blood and give a brief description of each. **(8 marks)**
- (b) Describe the pulmonary and systemic circulation, including the main branches to the main organs and indicate the relationship of these systems to the lymphatic system. **(12 marks)**
- Q6. (a) What is the functional unit of the kidney? **(3 marks)**
- (b) Describe the internal structure (longitudinal section) of the kidneys including indicating the anatomical position of the functional unit. **(10 marks)**
- (c) Briefly outline the main features of the renal corpuscle. **(7 marks)**
- Q7. (a) In relation to the digestive system name the parts of the small intestine and the large intestine. **(5 marks)**
- (b) Describe the layers of the small and large intestine (in the digestive system), with emphasis on the layer in contact with the food and including exocrine and endocrine glands and their products. **(15 marks)**
- Q8. Answer **either** question A **or** question B **but not both**
- A (i) List the components of the female reproductive system describing the relationship of each to surrounding structures. **(4 marks)**
- (ii) Describe the histological structure of the ovary. **(8 marks)**
- (iii) Briefly describe the structure of the mammary glands and indicate the path of milk secretion. **(8 marks)**
- B (i) List the components of the male reproductive system describing the relationship of each with surrounding structures. **(4 marks)**
- (ii) Describe the internal structure of the testis. **(8 marks)**
- (iii) Outline the main histological features of the seminiferous tubule. **(8 marks)**