

Cork Institute of Technology
Bachelor of Science (Honours) in Herbal Science – Stage 1

(NFQ Level 8)

Summer 2006

Anatomy

(Time: 3 Hours)

Instructions

Answer FIVE questions only.

Use labelled diagrams to illustrate your answer in all cases.

Examiners: Ms. A Keaveney

Dr. P. Sheehy

Dr. D. Corrigan

Mr. E. Walsh

Q1. Answer either **part a** or **part b** but not both

Part a

Describe the main features of the three types of muscle tissue. (10 marks)

Describe the microscopic anatomy of skeletal muscle. (10 marks)

Part b

Describe the general features of connective tissue and discuss the differences between connective tissue and epithelial tissue in relation to these features. (10 marks)

List the different types of connective tissue and discuss the features of each in terms of the basic elements of the tissue. (10 marks)

Q2. List the classification of joints and describe the features of each. (12 marks)

Draw and label the generalized structure of a synovial joint. (8 marks)

Q3. Draw a diagram of the digestive system and describe the main features of the digestive process at each stage. (10 marks)

Describe the anatomical arrangement of the tissues of the oesophagus, stomach, small intestine and large intestine. (10 marks)

Q4. Draw a diagram of the main components of the circulatory system. (8 marks)

Describe the gross structural anatomy (internal and external) of the heart including the blood vessels supplying blood to and from the heart and innervations. (12 marks)

Q5. Describe the components of the lymphatic system and list the primary and secondary lymphatic organs of the body. (12 marks)

Illustrate the relationship of the lymphatic system to the cardiovascular system indicating the flow of fluid, formation of lymph and routes of drainage from the lymphatic system into the cardiovascular system. (8 marks)

Q6. Draw a diagram of the structures of the urinary system and outline the process occurring at each structure. (10 marks)

Describe the external and internal anatomy of the kidneys including the blood and nerve supply. (10 marks)

Q7. Answer either **part a** or **part b** but not both

Part a

Draw a diagram of the main structures of the male reproductive system and outline the role of each in the reproductive process. (10 marks)

Describe the gross and microscopic anatomy of the testis including the blood supply and innervation. (10 marks)

Part b

Draw a diagram of main structures of the female reproductive system and outline the function of each in the reproductive process. (10 marks)

Describe the external and internal anatomy of the uterus indicating blood supply. (10 marks)

Q8. Define exocrine and endocrine glands. (3 marks)

Draw a diagram of the chief endocrine glands in the body and outline the hormones they secrete. (12 marks)

Describe the other types of endocrine tissue present in the body. (5 marks)

