

Cork Institute of Technology
Bachelor of Science (Honours) in Herbal Science – Stage 1
(NFQ Level 8)

Summer 2006

Human Physiology
(Time: 3 Hours)

Answer any five questions
All questions are 20 marks

Examiners: Dr. P. Sheehy
Ms. A. Keaveney
Dr. D. Corrigan
Mr. E. Walsh

- Q1. (a) Define homeostasis. (3 marks)
(b) Discuss how the body controls homeostasis in terms of feedback mechanisms. (12 marks)
(c) Give examples of positive and negative feedback mechanisms. (5 marks)
(Total 20 marks)

- Q2. (a) Define the two types of skin wounds. (3 marks)
(b) Outline in detail the two types of wound healing. (12 marks)
(c) Discuss the affect of aging on the skin. (5 marks)
(Total 20 marks)

- Q3. (a) List and explain the cellular elements of bone. (3 marks)
(b) Discuss with the aid of diagrams intramembraneous ossification. (12 marks)
(c) Outline the factors that affect bone growth. (5 marks)
(Total 20 marks)

- Q4. (a) Outline the three types of muscular tissue. (3 marks)
- (b) Discuss the creatine phosphate, aerobic and anaerobic energy producing systems. (12 marks)
- (c) Define muscle tone and muscle fatigue. (5 marks)
- (Total 20 marks)

- Q5. (a) List the overall functions of blood. (3 marks)
- (b) Discuss the physiology and life cycle of erythrocytes. (12 marks)
- (c) Outline and discuss erythrocyte formation. (5 marks)
- (Total 20 marks)

- Q6. (a) Outline the formation of thyroid hormones. (3 marks)
- (b) Discuss the control and functions of thyroid hormones. (12 marks)
- (c) Define the disease/disorders associated with hyposecretion and hypersecretion of thyroid hormones. (5 marks)
- (Total 20 marks)

- Q7. (a) Draw a diagram of the brain and spinal cord. (3 marks)
- (b) Describe the major components of the brain and spinal cord and their associated functions (12 marks)
- (c) List all the cranial nerves and their functions. (5 marks)
- (Total 20 marks)

Q8. Define digestion. (3 marks)

Discuss the digestion of food in relation to the functions of the digestive system.

(12 marks)

Outline the functions of the liver in relation to digestion. (5 marks)

(Total 20 marks)