

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

Instructions
Answer any FIVE questions
All answers require a diagram of the relevant structure

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

1.
 - (a) Describe the main processes involved in epithelial tissue repair. (deep and shallow)
(15 marks)
 - (b) Describe the factors that effect tissue repair.
(5 marks)

2.
 - (a) Describe the process by which bone is repaired following a fracture. **(8 marks)**
 - (b) Outline the main processes involved in bone growth. **(7 marks)**
 - (c) Briefly outline the hormonal regulation of bone growth. **(5 marks)**

3.
 - (a) Outline the main types of lever systems used in the human body.
(6 marks)
 - (b) Describe how bone and muscle work together to produce movement giving examples in relation to the different types of movement of the body.
(14 marks)

- 4.

(a) Describe the processes involved in nerve conduction of an impulse with reference to ion channels, resting membrane potential, refractory period, all or none principle and propagation. **(15 marks)**

(b) Compare nerve and muscle action potentials. **(5 marks)**

5.

(a) Describe the process by which bleeding or haemorrhage of blood is stopped within the body. **(15 marks)**

(b) Outline how platelets are produced within the body. **(5 marks)**

6.

(a) What are the six processes that occur during digestion? **(3 marks)**

(b) Describe the processes involved in absorption of nutrients into the body. **(10 marks)**

(c) Discuss the role of hormonal control of digestion. **(7 marks)**

7.

(a) What is internal and external respiration? **(6 marks)**

(b) Describe the processes that occur during internal and external respiration. **(14 marks)**

8.

(a) Describe the processes involved in sperm production in the male. **(12 marks)**

(b) Outline the main hormones involved in reproduction in the male. **(8 marks)**