

Cork Institute of Technology
Bachelor of Science (Honours) in BioSciences - Award
(NFQ Level 8)
Spring 2006
Science of Food & Healthcare
(Time: 3 Hours)

Instructions
Answer FIVE questions

Examiners: Dr. A. Sheehan
Prof. R. Fitzgerald

- Q1. (a) Explain what is meant by 'fuel factor'. (10 marks)
(b) Outline the benefits of human milk to the infant. (10 marks)
(c) In nutritional terms what is meant by 'BMI'? (10 marks)
(d) Explain briefly the outcome of dietary iron deficiency. (10 marks)
- Q2. Explain the possible role of diet in prevention OR treatment of the following:
(a) Arteriosclerosis (20 marks)
(b) Cancer (20 marks)
- Q3. (a) Outline the important requirements of food packaging. (20 marks)
(b) Outline the key elements of the Irish Food labelling regulations. (20 marks)
- Q4. (a) Describe two methods of sensory evaluation which could be of use in product development. (20 marks)
(b) Describe how you could construct a 'spiderweb' with data from Quantitative Descriptive Analysis. (20 marks)

- Q5. Describe the role of the following in foods:
- (a) Stabilizers (20 marks)
 - (b) Emulsifiers (20 marks)
- Q6. (a) Outline the key components of a typical HACCP programme. (20 marks)
- (b) Outline some of the key elements of a typical Quality Management programme. (20 marks)
- Q7. (a) Describe 2 benefits and 2 concerns associated with GM foods. (20 marks)
- (b) Describe 2 applications where enzymes play a key role in the production of a food or healthcare product. (20 marks)