

**CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ**

Autumn Examinations 2015

Module Title: Nutraceuticals (CA)

Module Code: BIOT7010

School: Biological Sciences

Programme Title: Bachelor of Science (Honours) in Nutrition & Health Science – Year 4

Programme Code: SNHSC_8_Y4

External Examiner(s): Prof. Torres Sweeney
Internal Examiner(s): Dr Helena Stack

Instructions: Answer question 1 and two other questions.
All questions carry equal marks.

Duration: 2 Hours

Sitting: Autumn 2015

Requirements for this examination:

Note to Candidates: Please check the Programme Title and the Module Title to ensure that you have received the correct examination paper.
If in doubt please contact an Invigilator.

Answer question 1 (Q1) and two other questions.

Q1. Discuss each of the following:

- (i) The relationship between food, functional food, nutraceuticals and pharmaceuticals
(use schematic to illustrate) (5 marks)
- (ii) Legal conditions for health claim regulation (5 marks)
- (iii) Nutraceutical research in Ireland (10 marks)

Q2. Write short notes on each of the following:

- (i) α linolenic acid (5 marks)
- (ii) Lineolic acid isomerase (5 marks)
- (iii) Oxyphytosterols (5 marks)
- (iv) Adiponectin (5 marks)

Q3. Critically evaluate the role of the gut microbiome in Irritable Bowel Disease (IBD) under the following headings:

- (i) Normal gut microbiome (healthy individual) (4 marks)
- (ii) Dysbiosis (12 marks)
- (iii) Pathogens linked with the aetiology of IBD (4 marks)

Q4. Write short notes on each of the following:

- (i) Bioavailability of bioactive peptides (5 marks)
- (ii) The renin-angiotensin system (RAS) (5 marks)
- (iii) Antimicrobial peptides isolated from milk (5 marks)
- (iv) Schematic showing the generation of novel bioactive peptides (5 marks)