

**CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ**

Autumn Examinations 2011

Module Title: Biomanufacturing

Module Code: BIOL8012

School: Science & Informatics

Programme Title: Bachelor of Science (Hons) in Nutrition & Health Science - Award

Programme Code: SNHSC_8_Y4

External Examiner(s): Dr Alison Gallagher

Internal Examiner(s): Dr Deirdre Gilroy

Instructions: Answer THREE questions

Duration: 2 hours

Sitting: Autumn 2011

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.

- Q1.** Describe the role of emulsifiers used in biomanufacturing. (25 marks)
- Q2.** Write a detailed account on the use of active packaging by the food industry. (25 marks)
- Q3.** Discuss the approaches used for the thermal processing of foods. (25 marks)
- Q4.** Write an essay on the topic of GM foods. (25 marks)
- Q5.** Your boss asks you to set up a method of sensory analysis to evaluate a new food product that the company has developed. Describe how you would approach this task and highlight the method which you would use, giving reasons for doing so. (25 marks)
- Q6.** (a) Why is rheology important in food/pharmaceutical industries? (15 marks)
(b) Outline the reasons why colour is important in food production and describe how colour is measured instrumentally. (10 marks)