

**CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ**

Semester 2 Examinations 2011-2012

Module Title: Biomanufacturing Science

Module Code: BIOL8012

School: Science & Informatics

Programme Title(s): BSc (Hons) in Nutrition & Health Science - Award

Programmes Code(s): SNHSC_8_Y4

External Examiner(s): Dr Alison Gallagher

Internal Examiner(s): Dr Olivia Cashman

Instructions: Answer three questions.

Duration: 2 hours

Sitting: Spring 2012

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. If in doubt please contact an Invigilator.

Q1. Discuss two of the following food processing methods. In your answer include the process steps involved, effect on nutritional quality and benefits of each method.

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|------|--------------------|--------------|
| i) | Pasteurisation | (12.5 marks) |
| ii) | Blanching | (12.5 marks) |
| iii) | Canning | (12.5 marks) |
| iv) | Drying/Evaporation | (12.5 marks) |

Q2. Discuss the role of excipients in the pharmaceutical industry. (25 marks)

Q3. Discuss GM foods in your answer outline the steps involved in the generation of a transgenic crop. (25 marks)

Q4. Discuss food preservatives in the meat industry. In your answer address any health concerns associated with their use and how changes in their use can alleviate those concerns. (25marks)

Q5. You have been asked to carry out a sensory evaluation of a new food. Describe how you would approach this task and highlight the method you would use, giving reasons for doing so. (25 marks)

Q6. Discuss both active and intelligent packaging in the food industry. (25 marks)