

**CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ**

Autumn Examinations 2012

Module Title: Food and Healthcare Microbiology

Module Code: BIOM 7003

School: Biological Science

Programme Title: Bachelor of Science in Food Science and Technology – Year 3
Bachelor of Science (Honours) in Nutrition & Health Science –
Year 3

Programme Code: SFSTE_7_Y3
SNHSC_8_Y3

External Examiner(s): Dr Don Faller
Internal Examiner(s): Dr Helena Stack

Instructions: Answer question 1 and two other questions.

Duration: 2 Hours

Sitting: Autumn 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 paper.
If in doubt please contact an Invigilator.

Answer question 1 and two other questions.

Q1. (a) Write a short note on the following:

- | | | |
|-------|-------------------|-----------|
| (i) | VRBA agar | (2 marks) |
| (ii) | EMB agar | (2 marks) |
| (iii) | Baird Parker agar | (2 marks) |

(b) Outline and describe the steps involved in isolation of *Salmonella* from Eggs. (14 marks)

Q2. Discuss in detail food spoilage in relation to the following;

- | | |
|--------------------------------|-----------|
| a. Meat and high protein foods | (5 marks) |
| b. Dairy foods | (5 marks) |
| c. Beverages | (5 marks) |
| d. Fatty foods | (5 marks) |

Q3. *Listeria* is among the top five pathogens contributing to domestically acquired foodborne illness resulting in death (Centre for Disease Control). Discuss under the following headings:

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|---------------------|-----------|
| Pathogenic species | (2 marks) |
| Risk groups | (2 marks) |
| Characteristics | (2 marks) |
| Metabolism | (2 marks) |
| Growth and survival | (4 marks) |
| Biofilm | (3 marks) |
| Pathophysiology | (5 marks) |

Q4. Write an essay on contamination control. (20 marks)