

CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ

Semester 1 Examinations 2008/09

Module Title: Analytical Microbiology

Module Code: BIOM7001

School: Science

Programme Title: Bachelor of Science in Applied Biosciences & Biotechnology
 Bachelor of Science in Analytical and Pharmaceutical Chemistry

Programme Code: SBIBI_7_Y3
 SCHEM_7_Y3

External Examiner(s): Dr. Don Faller
Internal Examiner(s): Dr Roy Sleator, Dr Siobhan O' Sullivan

Instructions: Answer 3 questions, one from section A, one from Section B, and the remaining question from either A or B.
 Use separate exam books for each section.
 Each question carries equal marks.

Duration: 2 hours

Sitting: Winter 2008

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.

Section A

- Q1. Define what is meant by **cGMP** and discuss the factors which affect the microbiological quality of a finished product with particular emphasis on **cleanroom technology**.
- Q2. Write a detailed essay on sterility audits with reference to:
- (a) Air and surface sampling techniques
 - (b) Direct and indirect microbial cell counts

Section B

- Q3. Outline the current molecular methods used for the identification and characterisation of specific microbial contaminants.
- Q4. Describe the most common biochemical and immunological based techniques used for the identification of microorganisms.