

CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ

Semester 2 Examinations 2011/12

Module Title: Fundamentals of Microbiology 2

Module Code: BIOM6006

School: Science

Programme Title: Bachelor of Science in Applied Biosciences & Biotechnology – Year 2
Bachelor of Science (Honours) in Pharmaceutical Biotechnology – Year 2
Bachelor of Science (Honours) in Nutrition and Health Science – Year 2

Programme Code: SBIOS_7_Y2
SPHBI_8_Y2
SNHSC_8_Y2

External Examiner(s): Dr J. Bird, Dr A. Gallagher, Dr A. Nelson
Internal Examiner(s): Dr A. Coffey

Instructions: **Answer three questions. All questions carry equal marks.**

Duration: 2 hours

Sitting: Summer 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.

- Q1. Write an essay on bacteriophages with reference to
- (a) their typical structure. 30 marks
 - (b) the lytic and lysogenic cycles. 40 marks
 - (c) their significance in terms of gene-transfer capacity. 15 marks
 - (d) their potential effect on industrial fermentations. 15 marks
- Q2. Write an account of fungi with reference to
- (a) their typical microscopic structures. 30 marks
 - (b) their beneficial impacts on human existence (detailing two examples). 30 marks
 - (c) their detrimental impacts on human existence (detailing three examples). 40 marks
- Q3. (a) Write an account of the general properties and importance of *E.coli*. 30 marks
- (b) Give an account of the principal gastroenteritis-causing *E. coli* groups. 20 marks
- (c) Give a detailed account *E.coli* O157 with reference to sources, pathogenesis and detection. 50 marks
- Q4. Write an essay on protozoa with reference to three significant protozoa, which are pathogenic for humans.