

**CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ**

Autumn Examinations 2011/12

Module Title: Pharmaceutical Microbiology

Module Code: BIOM 8002

School: Biological Sciences

Programme Title(s): Bachelor of Science (Hons) in Pharmaceutical Biotechnology
Bachelor of Science (Hons) in Nutrition & Health Science

Programmes Code(s): SPHBI_8_Y4
SNHSC_8_Y4

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

Internal Examiner(s): Ms S. Bullman

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. If in doubt please contact an Invigilator.

Q 1 Write short notes on **4** of the following:

- a. Distinguish between an antiseptic, a disinfectant and a preservative.
- b. Anthelmintic drugs
- c. The differences between a live vaccine and an attenuated vaccine.
- d. Antibiotic misuse and how antibiotic resistance can be prevented.
- e. Factors affecting the choice of an antimicrobial agent.
- f. Sulfa Drugs

(40 marks)

Q 2 Using examples outline the modes of action and mechanisms of resistance of drugs that affect cell wall synthesis in bacteria.

(30 marks)

Q 3 Compare and contrast the Kirby-Bauer (diffusion susceptibility), Minimum Inhibitory Concentration Test (MIC) and Minimum Bactericidal Concentration Test (MBC).

(30 marks)

Q 4 List 5 serological tests and using diagrams, outline the general precipitation techniques used in serology.

(30 marks)