

**CORK INSTITUTE OF TECHNOLOGY**  
**INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ**

**Semester 2 Examinations 2010**

**Module Title: Fundamentals of Microbiology II**

**Module Code:** BIOM6006

**School:** School of Science

**Programme Title:** Bachelor of Science in Applied Biosciences

**Programme Code:** SBIOS\_7\_Y2

**External Examiner(s):** Prof. G. Walsh  
**Internal Examiner(s):** Dr. D. Gilroy

**Instructions:** Answer FOUR questions

**Duration:** 2 hours

**Sitting:** Summer 2010

**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. (a) Viral replication can be divided into 7 stages. Describe these stages and explain what happens at each stage. (14 marks)
- (b) Write short notes on the influenza virus. (5 marks)
- (c) Describe how bacteriophages are cultured in the laboratory. (6 marks)
- Q2. (a) Write notes on members of the genus *Pseudomonas*. (18 marks)
- (b) Outline the key reactions used to differentiate between *Escherichia coli* and *Enterobacter aerogenes*? (7 marks)
- Q3. Write concise notes on **two** of the following Genera:
- Staphylococcus*
- Streptococcus*
- Lactobacillus*
- (25 marks)
- Q4. (a) Describe the fungi responsible for the following:
- Dry Rot
- Potato blight
- (16 marks)
- (b) Draw and label the structure of a *Penicillium* species. (5 marks)
- (c) On what type of media do fungi like to grow? (4 marks)
- Q5. Write concise notes on **two** of the following topics:
- Legionnaires' disease
- Cryptosporidium parvum*
- The Coliform group
- (25 marks)
- Q6. Outline characteristics of representative species of the genus *Bacillus* and *Clostridium*. (25 marks)