

*Ollscoil na hÉireann, Gaillimh*  
*National University of Ireland, Galway*

*GX 2261*

**Semester I Examinations, 2003/2004**

Exam Code(s)	3BS9
Exam(s)	3rd Year Science Examination
Module Code(s)	MI316
Module(s)	Industrial and Environmental Microbiology
Paper No.	1
Repeat Paper	Special Paper
External Examiner(s)	Professor C. M. Brown
Internal Examiner(s)	Professor E. Colleran
	Dr. T. Barry

**Instructions:**

**Answer 5 Questions**

**Please indicate clearly the numbers of the questions answered on the first page of your answer book**

Duration	3 hrs
No. of Answer books	5

**Requirements:**

Handout	
MCQ	
Statistical Tables	
Graph Paper	
Log Graph Paper	
Other Material	

No. of Pages	
Department(s)	

- Q1. Write an essay entitled "The Microbiology of Wine Production".
- Q2. Compare and contrast a typical food infection with a typical food intoxication.
- Q3. Write an essay on the epidemiology of an infectious disease of your choice.

- Q4. (a) What is or was SARS?

*or*

- (b) Breaking the vector system is one of the methods that can be employed to control infectious disease. Discuss this method of control by comparing its efficacy when applied to diseases spread by two different vectors.

- Q5. Describe the current model of microbial biofilm development. In your answer include an example of an experimental technique which has aided the study of biofilms.
- Q6. Critically discuss the use of *E.coli* as an indicator of faecal contamination of water.
- Q7. Discuss the advantages of Continuous Industrial Bioprocesses. What is the type of continuous bioprocess most suited to industry? Why is this so?
- Q8. Write an essay on the use of filters for the removal of micro-organisms from liquids and gasses.