

**OLLSCOIL NA hÉIREANN**  
**NATIONAL UNIVERSITY OF IRELAND, GALWAY**

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**SEMESTER II EXAMINATIONS, 2004**

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**Fourth Year (Denominated B.Sc. Degree in Marine Science; Honours)**

**MI421 *Marine Microbial Processes***

**Prof. M.J. Dring  
and the internal examiners**

**Time allowed: 3 hours  
*Answer 4 questions***

1. Write an essay on symbiotic relationships in marine environments
2. Compare and contrast methods of studying microbial community structure
3. DNA based methods have revolutionized the study of microbial ecology, but they have some serious shortcomings. What do you consider these shortcomings to be and how do you think they might be overcome.
4. What do we know about the microbial communities of deep ocean waters and sediments.
5. What are the ecological effects of viral activity within marine microbial communities?
6. Write an essay on the future of marine microbial ecology.