

OLLSCOIL NA hÉIREANN  
NATIONAL UNIVERSITY OF IRELAND, GALWAY

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SUMMER EXAMINATIONS, 2000

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B.Sc. DEGREE (HONOURS)

BOTANY

*First Paper*

Professor P. Gahan  
Professor M.D. Guiry  
Dr M. McDonald  
Dr M. Sheehy Skeffington

Time allowed: *Three* hours.  
Answer *three* questions, at least *one* from each Section.

SECTION A

1. Discuss the phenomenon of RNA processing in eukaryotic cells.
2. Evaluate the operon model as the basic mechanism of control of gene expression.
3. Discuss the use of vectors in gene cloning.

SECTION B

4. In your opinion should the conservation of rare plant species be an important element of Irish heritage policy? In your answer refer to and evaluate current methods for selecting and protecting rare plant species in Ireland.
5. Critically evaluate the current range of designation schemes for site conservation in Ireland. Discuss the theory that certain designations incorporating agricultural practice are more suited to some habitats than others.
6. Describe a habitat that you consider to be vulnerable in Ireland at present and give an account of the factors that threaten it. Assess current methods for evaluating the conservation status of sites and suggest possible restoration options in the event of damage.