

National University of Ireland, Galway
Ollscoil na hÉireann, Gaillimh

SUMMER EXAMINATIONS 2000

BIOTECHNOLOGY I (BG 101)

Paper 1

External Examiner: Professor N.C. Price

Time Allowed: *One hour*

Section B

Answer 1 question from each subsection.

Subsection 1

1. Describe the procedures involved in the production of monoclonal antibodies.

or

Outline, with the aid of diagrams, the role of T-cells in the immune response.

2. Give an account of the antigen-binding sites of antibodies and outline how antibody diversity is achieved.

Subsection 2

3. Give an account of the construction of both genomic libraries *and* cDNA libraries.
4. Describe some of the applications of recombinant DNA technology in **two** of the following areas:
 - (a) Diagnostics
 - (b) Forensics
 - (c) Agriculture