

National University of Ireland, Galway
OLLSCOIL NA hÉIREANN, GAILLIMH

SUMMER EXAMINATIONS 2003

**B.Sc. (HONOURS) DEGREE
GEOLOGY
EARTH SCIENCES**

PAPER TWO (GE 417)

Prof. B.P. Williams
Prof. P.D. Ryan
Dr. K. Moore
Dr. P. Orr

Time allowed: **THREE HOURS**

Answer three questions, **one** from **Section A** and **two** from **Section B**.

You should spend 80 minutes on question one and about 50 minutes each on the two questions from Section B.

SECTION A

1. 'The stratigraphy of the Circum-Troodos sedimentary cover reflects the effects of relative and eustatic changes in sea-level'. Discuss.
2. Contrast the styles of volcanic activity that are represented in the Troodos Complex and Kannaviou Formation. Describe how the two types of magmatism interact with the sedimentary environment and give the sedimentary/volcano-sedimentary products.

SECTION B

3. Write an essay on the driving forces of plate tectonics
4. Write an essay on the Neoproterozoic and Palaeozoic plate tectonic evolution of Ireland.
5. Explain how models involving the whole lithosphere help us understand the evolution of sedimentary basins during continental stretching.