

National University of Ireland, Galway  
OLLSCOIL NA hÉIREANN, GAILLIMH

SUMMER EXAMINATIONS 1998

B.Sc. (HONOURS) DEGREE  
GEOLOGY (GE442)  
EARTH SCIENCES (GE442)

PAPER THREE

Prof. B.P.J. Williams  
Prof. P.D. Ryan  
Dr. D.M. Williams  
Dr. P. Orr  
Dr. M. Feely  
Dr. K. Moore

Time allowed: Three hours

Write an essay on one of the following topics:

1. Design a final year undergraduate course for either Geologists or Earth Scientists.
2. If mankind were to go extinct tomorrow, what would the legacy to the geological record be?
3. Ripple marks.
4. Deep water sedimentation.
5. Subduction-accretion processes and their relevance to Irish Geology.
6. The tectonic setting of the Caledonian igneous rocks of western Ireland.
7. Metamorphism through time.
8. Metamorphic petrology provides a focal point for the student of crustal evolution.
9. "Resources will always be available to society".  
Discuss in terms of Earth Processes and the Earth as a series of concentric shells (asthenosphere, lithosphere, hydrosphere/biosphere/atmosphere).
10. World population in 1994 was 5.6 billion. Predictions are that, by the year 2050, it will have risen to between 7.8 and 12.5 billion.

Describe:

- (i) the effects of increasing population on the planet.
- (ii) Trends in average annual mortality rates due to natural disasters.