

National University of Ireland, Galway
OLLSCOIL NA hÉIREANN, GAILLIMH

SUMMER EXAMINATIONS 1999

B.Sc. (HONOURS) DEGREE
GEOLOGY (GE406, GE419)
EARTH SCIENCES (GE406, GE404)

PAPER ONE

Prof. B.P.J. Williams
Prof. P.D. Ryan
Dr. D.M. Williams
Dr. P. Orr

Time allowed: Three hours

Answer four questions: two from Section A, and two from Section B.
Please use separate Answer Books for each Section.

Illustrate your answers with neat sketches and diagrams where appropriate.

SECTION A (GE 406)

1. Briefly describe the basic principles of sequence stratigraphy and assess any problems these present.
2. Discuss the sedimentary processes and products on a clastic marine shelf.
3. Describe the typical facies associations and economic importance of deltas.
4. Outline the evolution of river systems.

SECTION B (GE419/404)

5. How have biomechanical approaches improved our understanding of eurypterid locomotion?
6. Is the Cambrian radiation a biological or a taphonomic phenomenon?
7. Terrestrialization can be viewed as a radiation into new ecospace made possible by physiological adaptations among plants and animals: discuss this statement.
8. How are chordates related to the other deuterostomes?