

OLLSCOIL na hÉIREANN, GAILLIMH
NATIONAL UNIVERSITY OF IRELAND, GALWAY

Semester 1 Examinations 2002-2003

SECOND ARTS EXAMINATIONS

GEOGRAPHY

TI 225 Specialism 4 Physical Geography
Soils and Biogeography

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Time allowed : 3 hours

Use a separate answer book for each section.

Answer one question from each section.

Section A

1. Critically assess the use of food chains and food webs as a means of examining energy exchange in the ecosphere.
2. Critically discuss the various stages involved in primary succession until the establishment of the climax community. In addition explain how secondary succession differs from primary succession
3. Define and briefly explain the significance of **three** of the following: biomass; dead organic matter, the carbon cycle, the phosphorous cycle, biodiversity
4. Discuss the reasons why humans can be viewed as agents of mass extinction.

Section B

5. Soil is a highly complex material composed of different types of inputs. Critically assess this statement.
6. Write a short critical note on the formation of three of the following: podzolization; ferrallitization; salinization; alkalisation; gleying.
7. Describe three principal soil types of Ireland and explain their distribution.
8. Describe the spatial distribution of the principal soil types in Co. Galway and explain their agricultural limitations.

Section C

8. Human intervention is the dominant factor explaining the postglacial evolution of Irish flora. Discuss.
9. The postglacial development of Irish fauna is as a direct result of human intervention whether deliberate or accidental. Assess this statement with reference to mammals.
10. Analyse the main causes of the demise of the Giant Irish Elk.
11. Critically assess the project to reintroduce the Golden Eagle back into Ireland with reference to the difficulties the project faced.