

Ollscoil na hEireann, Gaillimh
National University of Ireland, Galway

Semester II Examinations, 2005

2BS, 2ENV, 2MR, 2ER.

Zoology ZO206

Extern Examiner : Dr. John Breen
 and Internal Examiners

Answer *five* questions

Time allowed : Three Hours

- Q 1. Describe, with the aid of diagrams, the basic plan of organisation in the Ophiuroidea. Comment on how this group differs from other classes within the phylum.
- Q 2. Write a note on *three* of the following: echinoderm body wall; water vascular system; regeneration; echinoderm skin appendages.
- Q 3. What is meant by the term "Protochorda"? Describe the structure of the adult and the larva of any named protochordate.
- Q 4. "The skin of fish has many functions including protection, respiration, osmoregulation, excretion, colour control, as well as housing poison glands and sensory organs". Discuss.
- Q 5. Write a note on *three* of the following : lungfish (Sub-class Dipnoi) ; the European eel, *Anguilla anguilla*; the lateral line system; the European mackerel fishery.
- Q 6. Discuss the life-cycle and reproductive biology of a typical anuran, such as the common frog *Rana temporaria*.
- Q 7. Write an essay on the Lepidosauria, including the evolution of limblessness in this group. Explain the concepts of mono-, poly- and para-phyletic groups; and indicate why, at different levels, both 'reptiles' and 'lizards' fall into the last of these.
- Q 8. Write a brief essay on the ratite (palaeognathous) birds.
- Q 9. Discuss the adaptive radiation of the mammalian limb.
- Q 10. Describe in detail the Infraclass Metatheria.