

OLLSCOIL NA hÉIREANN

NATIONAL UNIVERSITY OF IRELAND, GALWAY

SUMMER EXAMINATIONS, 1999

DENOMINATED B.Sc. DEGREE IN MARINE SCIENCE (HONOURS)

MARINE BOTANY (MR 404)

Professor E. Theriou
and the internal examiners

Time allowed: *Three* hours.Answer *three* questions from *either* Section A or Section B.

SECTION A

1. Give an account of the effects of tidal movement on reproduction and seasonality in *Bonnemaisonia hamifera* (Rhodophyta).
2. "Pigment mutations are a particularly useful tool in the study of red algal genetics." Discuss in detail this statement.
3. Write a comprehensive account of sporangia and spores in red algae (Rhodophyta).
4. Describe in detail the ways in which one would establish whether a particular response in an alga is truly photoperiodic.

SECTION B

1. Write a comprehensive essay on fungal aeroallergens.
2. What is the rôle played by the mycorrhizal fungi in amelioration of metal phytotoxicity?
3. Give a comprehensive account of fungal enzyme technology.
4. "Many fungi produce metabolites called mycotoxins which, when ingested, cause toxic or carcinogenic symptoms in humans and animals." Discuss this statement.