

**OLLSCOIL NA hÉIREANN, GAILLIMH  
NATIONAL UNIVERSITY OF IRELAND, GALWAY**

**SUMMER EXAMINATIONS 2000/2001**

**M.Sc. OCCUPATIONAL HEALTH & ERGONOMICS**

**Dr. C. Hartley  
Professor C. Kelleher**

**OCCUPATIONAL HEALTH HP 501**

**TIME ALLOWED: THREE HOURS**

**ANSWER 5 QUESTIONS: ALL STUDENTS MUST ANSWER Q.1 IN SECTION A  
AND AT LEAST ONE FROM THE OTHER TWO SECTIONS AND ANY OTHER  
TWO QUESTIONS.**

**USE SEPARATE ANSWER BOOKS FOR EACH QUESTION**

**SECTION A**

- Q. 1** The protection of the health of workers has been a priority of every responsible National and International agency for at least half a century. Compare and contrast how the occupational health service can meet this obligation in an industrial and an office setting.

*(Prof. C. Kelleher)*

**SECTION B**

- Q. 2** Ethical dilemmas in the workplace include issues of conflicting loyalties on the part of health professionals and the possibilities of "victim blaming" of employees. Outline with examples, what these particular dilemmas might be and indicate how they might be handled or avoided.

*(Prof. C. Kelleher)*

- Q. 3** What factors affect the toxicity of a chemical?

Write notes on

- (a) Acute and Chronic Toxicity
- (b) Mutagenesis
- (c) Teratogenesis
- (d) Immunotoxicity

*(Dr. W. O'Flynn)*

- Q.4** Why is sea farming the most dangerous occupation?  
Describe illnesses and injuries suffered by those at sea, and what legislation exists and is proposed, to protect those working at sea?

*(Dr. W. O'Flynn)*

### SECTION C

- Q. 5** You are conducting a Safety Audit in a medical laboratory. What hazards and documentation will you look for?  
*(Dr. H. Grimes)*
- Q. 6** List the 5 principles of HACCPs and explain how these can be used to ensure food safety.  
*(Ms. M. Horkan)*
- Q. 7** Using the constituents of gloves as examples, explain the difference between allergic contact dermatitis (allergic eczema) and immediate hypersensitivity.  
*(Dr. D. J. O'Gorman)*
- Q.8** Write short notes on four of the following
- (a) The structure of the cell and how it functions
  - (b) The nephron and the process of urine formation
  - (c) The organisation and functioning of the endocrine system
  - (d) The structure and functioning of the lungs
  - (e) The general structure of a neuron and the conduction of nerve impulses
  - (f) The process of food digestion in the stomach and the small intestine

*(Dr. F. Hannon)*

OR

- Q.9** Describe how you would set up and run an Occupational Health Department. How would you measure its success and cost effectiveness?  
*(Dr. P McCrea)*