

Ollscoil na hÉireann, Gaillimh
NATIONAL UNIVERSITY OF IRELAND, GALWAY

Summer Examination, 2002

B.Sc. (Anatomy), AN403

General Paper

Paper III – Time allowed: **Three** hours

Dr S. McDonald

Mr A. Black

Dr M. Salgaonkar

Dr B. Wilkins

Please use **separate** answer books for **each** section.

Section A. Compulsory.

In the following questions the terms anatomy and anatomical encompass gross anatomy, histology, ultrastructure, embryology and development and neuroanatomy.

1. At all levels of anatomical study, motility (movement) is seen to be an important phenomenon in many processes. Discuss.
2. 'Despite over 600 years of anatomical research and progress, much still remains to be elucidated in the broad sphere of anatomy'. Discuss with reference to at least two anatomical problems that you feel are deserving of further research. (You may not use the subject matter of your own projects as one of the examples).

Section B. Answer TWO questions.

3. Write an essay on stem cells. Include in your answer the sources of stem cells, their potential uses, and any ethical considerations involved in their use.
4. Describe the histology and key ultrastructural features of ONE of the following organs:
 - a. spleen
 - b. stomach
 - c. liver
 - d. adrenal gland
 - e. trachea
 - f. coronary artery.
5. You are designing a Fourth Year Honours programme in Anatomy. What subjects would you include and why?