

Ollscoil na hÉireann, Gaillimh
NATIONAL UNIVERSITY OF IRELAND, GALWAY
Summer Examinations, 2002

FIRST MEDICAL EXAMINATION
Cells, Tissues and Development

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Time allowed: Three hours

Questions in **Section A** are worth 25 marks each. As a guide you should spend 40 minutes on each of these questions.

Questions in **Section B** are worth 12.5 marks each. As a guide you should spend 20 minutes on each of these questions.

The balance of time (20 mins) is for you to read the paper thoroughly and review your answers at the end.

Section A: Answer Question 1 and ONE other question.

1. In the 21st century human cloning will provide the solution to many presently incurable diseases and conditions. Discuss, including your observations on the social implications of human cloning.
2. The structure of an epithelium reflects the function of the organ in which that epithelium is found. Discuss, citing at least two examples derived from different germ layers.
3. Write an essay on the development of the kidney and ureter. Include in your answer notes on the structure of the adult nephron.
4. Write an essay on the development of the foregut and its derivatives.

Section B: Answer FOUR questions.

5. Write an essay on how long bones grow in length and width.
6. Write an essay on fertilization.
7. Write an essay on the placenta.
8. Write an essay on the histological structure of the respiratory portion of the airway.
9. Write notes on:
 - a. Neurulation
 - b. Histological structure of a peripheral nerve.
10. Write notes on:
 - a. Liver lobules.
 - b. Neural crest.