

National University of Ireland, Galway
Colaiste na hÓllscoile, Gaillimh

Mechanical Engineering
AN 305
Third Year 1999-2000

Human Structure

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Time: Three Hours

The examination consists of **two** sections.

Answer all questions from Section A and three questions from Section B

SECTION A

Answer ALL questions in this section.

Allow approximately 1 hour 30 minutes for this section.

1. Write an essay on the fibroblast, indicating the importance of this cell type in maintaining mechanical stability of the human body.
2. 'The surface interaction of a cardiovascular device with the blood is the deciding factor in its success or failure'. Discuss with reference to thrombosis and embolism.
3. Write on cell surface specialisations

SECTION B

Answer THREE questions from this section.

Allow approximately 1 hour 30 minutes for this section.

1. Describe the (gross) anatomy of the left lung.
2. Write an essay on the anatomy of joints. Use the shoulder joint as your illustrative example.
3. Write an essay on the general structure of the female reproductive system.
4. You are hired as a consultant to a biomedical company. Write a feasibility report on the production of an artificial tongue for oral cancer patients using anatomical evidence.
5. Write an essay on the heart.