

Ollscoil na hÉireann, Gaillimh
Semester 1 Examinations, 2003/2004

Exam Code(s)	2NG1 and 2NG2
Exam(s)	Second Bachelor of Nursing Science (General) Second Bachelor of Nursing Science (Psychiatric)
Module Code(s)	NU213
Module(s)	Aspects of Biomedical Science
Paper No.	
Repeat Paper	Special Paper
External Examiner(s)	Dr. Shelagh Sparrow
Internal Examiner(s)	Dr. Karen Doyle Dr. Madhavi Salgaonkar Dr. John Kelly

Instructions:

You are expected to attempt **all** sections.
 You are expected to answer **one** question from Section A,
two questions from Section B, and **one** question from
 Section C.
 Use a separate answer book for each section.
 All questions carry an equal mark.

Duration	3 hours
No. of Answer books	3

Requirements:

Handout	
MCQ	
Statistical Tables	
Graph Paper	
Log Graph Paper	
Other Material	

No. of Pages	2
Department(s)	Centre for Nursing Studies

SECTION A ANATOMY

Answer **one** question from this section. Allow 45 minutes for each answer.

1. Using your anatomical knowledge, trace the path of a pain impulse from the thumb to the cerebral cortex.
2. Write an overview of the early stages of human development starting at ovulation and ending at implantation in the uterine wall.

SECTION B PHYSIOLOGY

Answer **two** questions from this section. Allow 45 minutes for each answer.

3. Outline how the pain gate theory can explain the effectiveness of rubbing a painful area as a mechanism of pain relief. Include an outline of the characteristics of A δ , C and A β fibre activation in your answer.
4. Answer either part a **or** part b.
 - (a) Describe the process of how light is sensed in the retina
 - or**
 - (b) Describe the process of how sound is sensed in the Organ of Corti
5. Discuss the role of the pancreas in the control of blood glucose.
6. Write an essay on the endocrine role of the thyroid gland.

SECTION C PHARMACOLOGY

Answer **one** question from this section. Allow 45 minutes for each answer.

7. Compare and contrast the pharmacological properties of aspirin and morphine.
8. Write a short account on the pharmacological treatment of bacterial infections.

END