

NATIONAL UNIVERSITY OF IRELAND, GALWAY

Ollscoil na hÉireann, Gaillimh

Semester II, 2000 - 2001; resit Autumn 2002.

Second Science Examination

BIOCHEMISTRY (BI212)

External Examiner: Dr. D. Apps

Time Allowed: **Two Hours.**

Please attempt **three** of the following. All questions carry equal marks.

1. Describe the biosynthesis of fatty acids.
2. Give an account of the urea cycle.
3. Describe the process of DNA replication, illustrating how high accuracy is achieved in the process.
4. Explain how mRNA directs protein synthesis in cells.
5. Discuss the roles of protein phosphorylation in the regulation of metabolism.
6. Give an account of the digestion of carbohydrates in mammals.