

OLLSCOIL NA hÉIREANN, GAILLIMH
NATIONAL UNIVERSITY OF IRELAND, GALWAY

Summer Examinations, 1998

B.Sc. (Hons.)

PHYSIOLOGY

SECOND PAPER

Professor N.G. McHale

Professor M.T. Kane

Dr. A.C. Hynes

Time Allowed: **Three** hours. Answer **four** questions

1. Write a comprehensive clear account of either the cAMP/cGMP, the PtdIns or the tyrosine kinase signal transduction systems.
2. Give an account of the roles of aldosterone and ADH in the control of salt and water metabolism. How is specificity assured for the effects of aldosterone on the mineralcorticoid receptor in the kidney?
3. Give an account of the control of LH secretion by GnRH in the ewe. Contrast this briefly with the control in women.
4. Contrast the effects of insulin and growth hormone on glucose metabolism.
5. Outline the step which led scientists first to the discovery of calcitonin and then to the localization of its gland of origin.
6. Discuss the role of cyclin dependant kinases as regulators of the cell cycle