

OLLSCOIL NA hÉIREANN, GAILLIMH
NATIONAL UNIVERSITY OF IRELAND, GALWAY

SEMESTER 1
WINTER EXAMINATIONS 2002

THIRD YEAR EXAMINATION IN INFORMATION TECHNOLOGY
AND BSC EXAMINATION

CT412
CT427

COMPUTER SECURITY

Prof. P. Nixon
Prof. G. Lyons
Dr. C. Mulvihill

Candidates are required to answer **THREE** questions
All questions carry equal marks
Time allowed: **TWO** hours

- 1 'Computer security staff are charged with a very difficult mission due in part to the wide variety of technologies and applications that are deployed in a typical organisation'. Explore this statement, considering email, web surfing, laptops and wireless networking in the course of your answer.
- 2 'Steganography comes in many forms and can be very difficult indeed to detect in some cases'. Explore this statement, giving your understanding of the term 'steganography' in the course of your answer.
- 3 'An organisation may find itself subject to many forms of cyberattack, some internal, some external'. Explore this statement, considering both denial of service attacks and packet sniffing in the course of your answer.
- 4 'Data integrity is central to computer forensics. No integrity, no case to answer'. Explore this statement, considering disk imaging, hashing, and the issue of a trusted computing base in the course of your answer.
- 5 'Attacks on an organisation have certain patterns which the organisation itself may use to test its defences'. Explore this statement, considering network mapping, vulnerability scanning and penetration testing in the course of your answer.