

UNIVERSITY OF PORTSMOUTH

FACULTY OF TECHNOLOGY

Department of Electronic and Computer Engineering

## M590 Technology Exploration

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**SAMPLE**

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**Date :** 2 February 2006

**Time :** 11.15 – 13.15

### INSTRUCTIONS

Write your student ID number clearly on page 2.

Write your answers to all 5 questions in this examination paper.

For each question, indicate your answer to **part A** by placing an “X” in the box next to the appropriate boxes on the answer sheet. For each question, write your answer to **part B** by writing in the appropriate space in this examination paper.

Handwritten notes are permitted with this examination.

### Calculators permitted to be used:

Casio FX 85WA

Casio FX 83WA

Casio FX 85MS

### Examiners:

Mr Chi Nguyen, Dr Zhili Sun

Student ID Number

**Question 1A.** Place an "X" in the box next to 5 terms that are most directly related to the combined use of cryptography and authentication. [10 marks]

<input type="checkbox"/>	symmetric ciphers	<input type="checkbox"/>	EIP
<input type="checkbox"/>	asymmetric ciphers	<input type="checkbox"/>	MAC
<input type="checkbox"/>	hybrid ciphers	<input type="checkbox"/>	NOP
<input type="checkbox"/>	codes	<input type="checkbox"/>	shared
<input type="checkbox"/>	hashes	<input type="checkbox"/>	centralised
<input type="checkbox"/>	blocks	<input type="checkbox"/>	independent

**Question 1B.** For each of the terms that you selected in question 1A, briefly describe how that term improves the authentication process. [10 marks]

