

MODERN CRYPTOGRAPHY

University of Amsterdam, 2018

TEAM NAME: Your team name

STUDENT NAMES: Your names

Homework set 1

Contents

Question 1	2
Question 5	3
Question ∞	4

Question 1

Your solution here

Question 5

Your solution here

Question ∞

Here are some macros for you that might be helpful when writing out your solutions to the problems.

- Different fonts: \mathcal{X} , \mathbb{E} , \mathbb{R} , abc
- Encryption protocol: $\Pi^{\text{OTP}} := (\text{Gen}, \text{Enc}, \text{Dec})$. The key generation algorithm Gen picks a uniformly random key $k \xleftarrow{\$} \{0, 1\}^n$ and the encryption algorithm works as follows $\text{Enc}_k(m) := m \oplus k$, where \oplus is the bitwise addition.