

## MATH447/747 ASSIGNMENT 6

FALL 2012

The following questions are optional questions. They do not need to be handed in and will not be graded if they are handed in

- Vanstone and van Oorschot section 5.10 # 13, 23, 24

The following questions are to be handed in. They are due **Friday November 2** in class.

- (1) Vanstone and van Oorschot section 5.10 # 14, 22, 32, 40
- (2) The extended binary Golay code from chapter 4 is an “extended” version of a cyclic code.
  - (a) Figure out what this cyclic code is (look it up if necessary; cite your sources), and determine its generator polynomial.
  - (b) What is the rate of this cyclic code and what is the rate of the extended binary Golay code?
  - (c) Compare the distances of the two codes.