

MATH447/747 ASSIGNMENT 8

FALL 2012

The following questions are to be handed in. They are due **Friday November 30** in class.

- (1) Vanstone and van Oorschot section 6.6 # 8, 20, 30
- (2) Summarize in a few lines the proof that the algorithm for decoding BCH codes works. Don't just give the argument again, *summarize* giving only the key points and not the details.
- (3) What is the best code for a given circumstance will depend on things like,
 - how often you expect errors in your channel
 - whether the errors are uniform or burst-like or ...
 - how important it is to have a high transmission rate
 - how quickly you need to be able to encode and decode
 - whether excessively corrupted blocks can be retransmitted

Invent 2 different scenarios (they can be silly or practical) and discuss which of the codes we discussed this semester would be best for your situations.