

ECE 526, Quiz 5 Solution

December 2, 2016

1. (a) false; (b) (i) true; (ii) false;
2. (i) false; (ii) true; (iii) true;
3. (a) 2 bits or $\log_2 3$ bits are both correct;
(b) Yes. Consider the following algorithm:
Pick an arbitrary process, say p_1 .
 p_1 broadcasts its k bits input one by one, and terminates and decides on *not equal* if disagreement is received from other processes.
Other processes check the bit broadcasted by p_1 with their own input. Broadcast disagreement if not equal.