ECE 271 HW #4

(Due Thursday August 6th)

1. A digital system consists of 10 components. Three of the components have a failure rate of 300 FITs, 2 components 150 FITs and the remaining components 425 FITs. What is the system MTBF?
2. Briefly describe the three phases of failure rates over the lifetime of a product.
3. You are using a MT48LC64M8A2-7E:C SDRAM.
4. Describe the steps necessary to initialize this memory device before performing read or write operations
5. You have configured the memory to perform read operations with a burst length of 4. How do you ensure the write operations are only 1 location at a time and not also a burst of 4 locations?
6. What is the shortest amount of time it will take to read 64 consecutive memory locations assuming the fastest possible clock and a CAS latency of 3?