분산시스템 (Multiprocessor Synchronization) 중간고사2

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name :

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1. Explain the difference between lock-free & wait-free.

2. Insert the following 10 items into 10 buckets using Hopscotch hashing. (H=4)
h(A)=1,h(B)=7,h(C)=5,h(D)=3,h(E)=2,h(F)=3,h(G)=6,h(H)=4,h(I)=7,h(J)=2
This picture shows the status after adding A,B,C,D,E..

A	E	D		C		B			
1000	1000	1000		1000		1000			

3. What is the difference between Read-Copy-Update & Read/write lock ?

4. I would like to parallelize QuickSort() using multi-thread program. Assume we do it in divide and conquer type. What would be the work(T_1) and critical path length (T_∞) of this program ?

5. Combining Tree : It takes 0.2 at each step and left always wins in tie-breaking.

6. Tree-based Priority Queue : It takes 0.1 at each step. Tie break is (left, right, upper)