CS 480: DATABASE SYSTEMS

Some practice problems

1. Consider the following schedules. Identify which are conflict serializable. Give the reason. If a schedule is conflict serializable, give a serial schedule that is conflict equivalent to it.

$$R_0(A)R_0(B)R_1(B)R_3(A)W_1(A)R_2(C)W_2(B)W_3(C)$$

$$R_0(A)R_0(B)R_1(B)R_3(C)W_1(A)R_2(C)W_2(B)W_3(C)$$

2. Explain ACID properties of transctions.

3. Define Serialiazability, Conflcit Equivalence and Conflict Serializability of schedules.

4. In a couple of sentecnes describe shadow copy scheme for ensuring durability.

5. For the following schedules indicate if they can be obtained by using 2 phase locking?

$$R_0(A)R_1(B)R_2(C)W_1(A)W_0(B)W_2(C)$$

$$R_0(A)R_1(B)W_0(A)W_1(A)$$

6. Can the schedules of problem 5 be obtained using time stamp based protocol assuming that the time stamp of a transaction is it's id?