

**School of Information Technology
IIT Kharagpur**

Course Id: IT60113 Advanced Database Systems (Class Test 2)

Date: October 27, 2010

Total Time: 1 Hour

Max. Marks: 30

1. Consider the three transactions T1, T2, and T3, and the schedules S1 and S2 given below.
- Draw the serializability (precedence) graphs for S1 and S2 and state whether each schedule is conflict serializable or not.
 - For each conflict serializable schedule, write down all possible equivalent serial schedules.
 - If any of the schedules is view serializable, state why is (are) it (they) so (specifically for these schedules. Do not write general definitions of view serializability). For each view serializable schedule, write down all possible equivalent serial schedules.

T1: r1(x); r1(z); w1(x)

T2: r2(z); r2(y); w2(z); w2(y)

T3: r3(x); r3(y); w3(y)

S1: r1(x); r2(z); r1(z); r3(x); r3(y); w1(x); w3(y); r2(y); w2(z); w2(y)

S2: r1(x); r2(z); r3(x); r1(z); r2(y); r3(y); w1(x); w2(z); w3(y); w2(y)

[10+10+10=30]