IT344 DBMS

Assignment No. : 02

Last Date for Submission: **24 October 2015**

Total Marks: 5

NOTE: Write your answers on this word document and submit it in the appropriate submission folder. Copying & late submission will result in ZERO marks.

Q1. Consider the four transactions T1, T2, T3, T4 and the schedules S given below. (3 marks)

T1: $w_1(A)$; $w_1(B)$

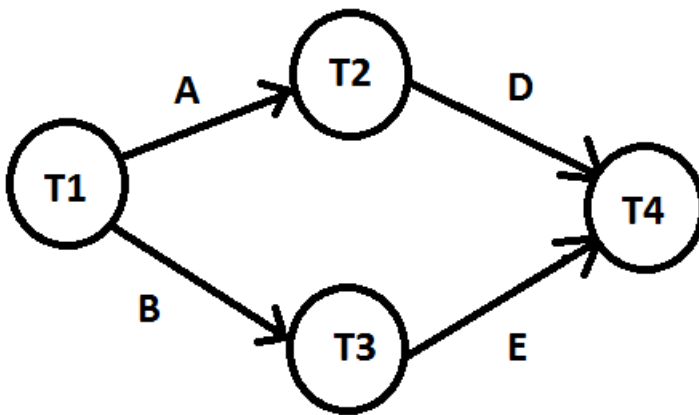*T2: $r_2(A)$; $r_2(C)$; $w_2(D)$*

T3: $r_3(B)$; $w_3(E)$

T4: $r_4(D)$, $w_4(E)$

S: $w_1(A)$, $r_2(A)$, $w_1(B)$, $r_2(C)$, $r_3(B)$, $w_2(D)$, $w_3(E)$, $r_4(D)$, $w_4(E)$

   a. Draw the serializibility (precedence) graph for S
   b. If S is serializible, write down the equivalent serial schedule(s).

Answer:

1.a

1.b

The equivalent serial schedules are:

T1 → T2 → T3 → T4

T1 → T3 → T2 → T4

Q2. What is Partitioning? Why we use it? Discuss its types with examples. (2marks)

Horizontal partitioning involves putting different rows into different tables. Perhaps customers with ZIP codes less than 50000 are stored in CustomersEast, while customers with ZIP codes greater than or equal to 50000 are stored in CustomersWest. The two partition tables are then CustomersEast and CustomersWest, while a view with a union might be created over both of them to provide a complete view of all customers.

Vertical partitioning involves creating tables with fewer columns and using additional tables to store the remaining columns. Normalization also involves this splitting of columns across tables, but vertical partitioning goes beyond that and partitions columns even when already normalized.