Practice Questions on Transactions

What is the equivalent serial schedule for the following transactions?

T1	T2	T3
		R(Y)
		R(Z)
R(X)		
W(X)		
		W(Y)
		W(Z)
	W(Z)	
R(Y)		
W(Y)		
	R(Y)	
	W(Y)	
	R(X)	
	W(X)	

A. T1 – T2 – T3

B. T3 – T1 – T2

C. T2 – T1 – T3

D. T1 – T3 – T2

Answer: B

Consider following schedules involving two transactions: S1 : r1(X); r1(Y); r2(X); r2(Y); w2(Y); w1(X) S2 r1(X); r2(X); r2(Y); w2(Y); r1(Y); w1(X) Which of the following statement is true?

A. Both S1 and S2 are conflict serializable.

B. S1 is conflict serializable and S2 is not conflict serializable.

C. S1 is not conflict serializable and S2 is conflict serializable.

D. Both S1 and S2 are not conflict serializable.

Answer: D

ACID properties of a transactions are

A Atomicity, consistency, isolation, database

B Atomicity, consistency, isolation, durability

C Atomicity, consistency, integrity, durability

D Atomicity, consistency, integrity, database

Answer: B

Consider

T1	T2	T3	T4
	R(x)		
		W(x)	
		Commit	
W(x)			
Commit			
	W(Y)		
	R(Z)		
	Commit		
			R(X)
			R(Y)
			Commit

Which one of the following statements is CORRECT?

(A) S is conflict-serializable but not recoverable

(B) S is not conflict-serializable but is recoverable

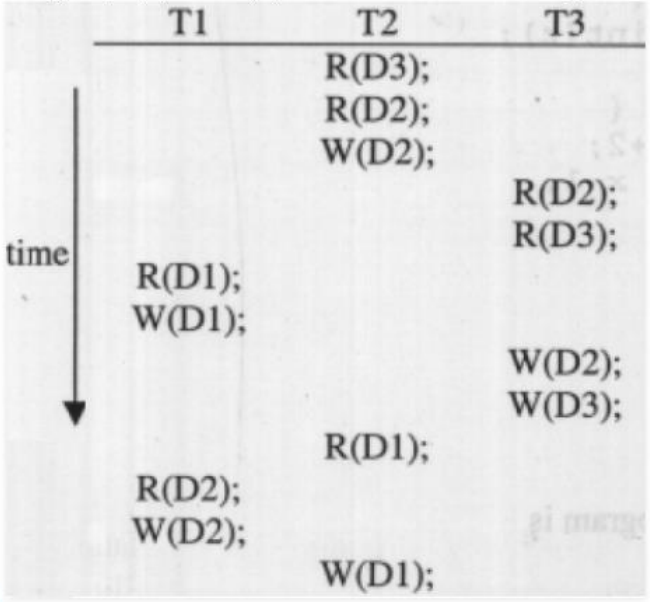
(C) S is both conflict-serializable and recoverable

(D) S is neither conflict-serializable nor is it recoverable

Note: A schedule is recoverable if it is free from Dirt Read Problem

Option C.

Consider three data items D1, D2 and D3 and the following execution schedule of transactions T1, T2 and T3. In the diagram, R(D) and W(D) denote the actions reading and writing the data



item D respectively.
Which of the following statements is correct?

A The schedule is serializable as T2; T3; T1

B The schedule is serializable as T2; T1; T3

C The schedule is serializable as T3; T2; T1

D The schedule is not serializable

Answer: D