COS418 Precept 8 - Consistency

11/17/17

Circle the degree of consistency satisfied by each of the following sequence of reads and writes.

Q1							Strict consistency
							Linearizability
							Sequential consistency
							Causal consistency
							Eventual consistency
Q2							Strict consistency
P1:	W(x) 3				W(y) 7		Linearizability
P2:		W(x) 1					Sequential consistency
P3:			R(x) 1	R(x) 3		R(y) 7	Causal consistency
P4:			R(x) 1	R(x) 3		R(y) 7	Eventual consistency
12 12 13 13							Eventual consistency
P5:			R(x) 1	R(x) 3		R(y) 7	
Q3							
							Strict consistency
	W(x) 3				W(y) 7		Linearizability
P2:		W(x) 1					Sequential consistency
P3:			R(x) 1	R(x) 3		R(y) 7	Causal consistency
P4:			R(x) 3	R(x) 1		R(y) 7	Eventual consistency
P5:			R(x) 1	R(x) 3		R(y) 7	

Q4									Strict consistency
P1	: W()	c) 1							Linearizability
P2	::	V	/(x) 3						Sequential consistency
P3	:			W(x) 7					
P4	:				R(x)	3 R	(x) 7	R(x) 1	Causal consistency
P5	:				R(x)	3 R	(x) 1	R(x) 7	Eventual consistency
Q5									Strict consistency
									Linearizability
									-
									Sequential consistency
									Causal consistency
									Eventual consistency
Q6									Strict consistency
	W(x) 1	D() 4	14// \ 0						Linearizability
P2:		R(x) 1	W(x) 3	R(x) 3	W(x) 7				Sequential consistency
P4:				1 (//, 0		R(x) 3	R(x) 7	R(x) 1	
P5:						R(x) 3	R(x) 1	R(x) 7	Causal consistency
									Eventual consistency