Tutorial 15

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B-15

Q1 $R(ABCD)$

$$A \to B$$
$$A \to C$$
$$C \to D$$

$R_1 (ABC)$	$R_2 (CD)$
F_1 $A \to B$ $A \to C$	F_2 $C \to D$

$$F_1 \cup F_2 = F$$

Dependency Preserving

Q2 $R(ABCD)$ $F(A \to B, B \to C, C \to D, D \to A)$

$R_1 = AB$	$R_2 = BC$	$R_3 = CD$
F_1 $A \to B$ $B \to A$	$F_2: B \to C$ $C \to B$	F_3 $C \to D$ $D \to C$

$$F_1 \cup F_2 \cup F_3 = F$$

$$A \to B \checkmark$$
$$B \to C \checkmark$$
$$C \to D \checkmark$$
$$D \to A \checkmark$$

$D \to A$ is not lost.

Q3

$$R(A\,B\,C\,D)$$
$$A \rightarrow B$$
$$B \rightarrow C$$

D_1		
A C D	A B	B C

A C D B a   B C

[A B C D] .

Lossless dependeny .

	D_2	
A B	B C	C D

[A B C]   Non candidate ky.

Lossly Dependy .