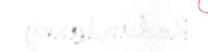
REDUNDANCYX



- D REDUNDANCY STORAGE
- 2) UPDATE ANOMALIES TRICONSISTANCY ATOMIC
- 3) INSERTION ANOMALIES

4). DELETION ANOMALIES

ROLL NO. - STRING

- 1). LOSSLESS JOIN
- 2). DEPENDENCY-PRESERVATION.

A B C a, b, c, a, b, c, a, b, c, a, b, c, a, c	A B 5. 43 6. 1	b2 6,	C1 C2 C3		
	8= I AB		A	B	C
R = (A, B, C)	LI Y W	8	9,	6,	9
R, = (A, B)	18 + 7, W	2	91	61	C3
$R_2 = (B, c)$	(8, × 52)			
S T	ABC Y.B=Z.B				

FD dyp holds on R

A	B
1	4
1	5
3	7
	A 1 1 3

$$t, [A] = t_2[A] \Rightarrow t_1[B] = t_2[B]$$
 $4 + 5$



				•
	A	B	C	A
£,	9,	Ь,	c,	۵,
tz	9,	6,	c,	d2
t3	9,	6,	62	d
tq	92	6,	c ₃	d,
		8		

SUPERKEY:

B

Y(R) $K \subseteq R \text{ if,}$ $t_1, t_2 \in \mathcal{X}$ $t_1 \neq t_2 \text{ then } t_1[X] \neq t_2[X]$

X value uniquely identify
a tuple in r

0	ABC	
E,	a, b, c,	
£2	a2 62 C1	
t,	9, 6, 62	Constitution of the last

Candidale key

1) K > R holds

$$X \rightarrow R$$
 $AB \rightarrow ABC FP?X$
 $t_1[X] = t_3[X]$
 $t_1[R] = t_3[R]$

i.e.,
$$t_1[X] = t_2[X] \Rightarrow t_1[R] = t_2[R]$$

for any $t_1, t_2 \in \mathcal{T}$.