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Section: 07

## Ans to the ques no! - 1

- Al For the same values of X, the combination of Y and Z is unique. Thus, X -> TZ is valid.
- B) When the combination of X and Y is {(xy2',
  2)}, the connesponding value of A is {(11),(13)}.

  As this dependency is giving multiple nesults

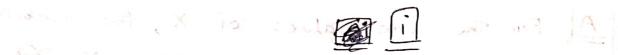
  for same X and Y, XY -> A is invalid.
- c) when the value of A is 10, we get  $xyz = \{ \langle 'akcefg', 1, 'a' \rangle, \langle 'akcdefg', 3, 'a' \rangle \}$ .

  Because of multiple results,  $A \rightarrow XYZ$  is invalid.
- DI For the combination {\(\cappa\_3, \quad \cappa\_1\)} from Y and Z,

  the connesponding value of X = {\(\cappa\_1 \) feed (abcdefg)}

  Because of multiple negults, YZ \(\cappa\_1\) is invalid.
- E) we always get the same value from Z for the same value of Y. So, Y > 7 is valid.

## Ans to the ques noi-2



There is no composite on multipalued attribute in the nelation. If we assume that the values of this relation is atomic, then, the relation is already in INF.

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There are partial dependencies present in the relation. So, it is not in 2NF.

After converting it to 2NF:

Jay 1	1 SYXEA	flower slatter	r ro 92	Reserve			
	Engineen						
	Engineer news ID	Engineer Name	Total Repairs	Commission_ Percentage	Engineer. Phone		
Computer States gribana suns							
	Comp_ID   Customer - Plane   Customer - phone						
	Comp-ID Date-Assigned Issue Priority-Level Service Charge Comp-nepsin-information Date Assigned Issue Priority-Level Service Charge						
Section 1997	Comp-ID Engine	en_ID Date	- Assigned	Date - Rep	alned		

## iii

There are two transitional dependencies.

After conventing to 3NF:

	Computer	*				
	Comp_ID   Customer_Name   Customer.	Phone				
	Comp_repaire_information					
	[Comp_ID   Engineer_ID   Date_Assigned	Date_Repained				
	Engineer					
	Engineer_ID Engineer_Name Total Repairs					
_	Engin	ieen-Phone				
	Commission [Total_Repairs Commission_Pencentage]					
	Repaire  Comp-ID Date-Assigned Issue Priority-Level					
Control of the Contro	Priority-Level   Service _ Change					