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al Engineering of	Branch :	NSTITUTE OF ENGINE	Lecture Notes	Subject :				
	Topic ;	Unit						
		function	al depend	lency (FD)				
	-> a	functionary de	ependency	is a reland	timship			
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	W	X-> Y						
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	example							
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	S-id	S-Name	Age					
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Here we can say that S-Name functionally dependent Name of Lecturer: on S-id.

ARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, RUHAS, Jaipur Types of functional dependency: (11) Non-trivial functionery dependency (111) Semi - Non trivial functional dependency is Trivial functional dependency: if x, y gre some attribute of my relation, then in trivial functional dependency Here x is superset of y or we & com say that y is subset of or



## ARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, KUKAS, Jaipur Lecture Notes

K	Topic:
	Westmanger Level Some Interest - week
	Namble 1:
	S-id + S Name > S-Name
	S-Name
	Here S-id + S-Name > S-Name so it is in
-	trivial functional dependency
6	example of the state of the sta
	S-id > S-Name
	Here s-id & s- Name so it is not in
	trivicy functional dependency.
-6	temple 3 years eget betallow being tower and imit
WA	s-id + s-Name -> s-Name + age
H	ere s-id + s-Name = \$ s-Name + age so
melt .	it is not in trivial functional dependent
	in sens-the birth time to perhery

8	Y
	ARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, KUKAS.
STATE OF	
	Non-trivial temesional dependency:
	if x, y goe two attribute of relatin R
	in Non-trivial functioned dependency.
	when $x n y = \emptyset$
	example 1:
	5-id + 5-Name -> Age
	Je de la
	$xny = \phi$
	probagob territoria konte
	semi-Non trivial functional dependency;
	It is a Combition of trivial and non-trivial
	functioner dependency:
pack.	it x, y me two attribute of relation R
	in Semi-Non trivial functioned dependency
	To p y

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Lecture Notes Sem.: Sem.: Subject:

Unit......Lecture No.

example:

Sidt & Name -> Sidt age

> Semi- Non topical for

ED Thirial S-id + S-Name

(Non-Taivied FD) 30 S-Name 5-10

•										
ARTH INSTITUTE OF ENGINEERING & TECHNOSOCY, KUEAS, sipra	Asmstang's Rule for FD:	(i) Reflexivity Rude: X->X (always valid)	(ii) Transitivity RWE:	Ze-X by Zeh pwo Kex H	(III) set orgumentation Rule:	(iv) Spill Rude:	26 y 26 X want 24 x 41	(v) merge Rule:	if X > y or X > 2 then X > y2	[ Z + X

	ARYA COLLEGE OF ENGINEERING & RESEARCH CENTRE, KUKAS, Jaipur  Lecture Notes  Sem.: Subject:  Topic: Unit. Lecture No.
	Lecture No.
	Attaibute clossure:
	- Closed S.C.
	The is denoted by X+.
	- Attribute closure is set of attribut determine
	by x recyssively.
	300 7A + TA
	ASSOR IS
1 30 0	example:
	R(ABCD)
	FD[A→B, B→C, C→D]
E . By	here R is a relation (table) and A,B,G,D
	me attributes of relatin p.
	find closure of any attribute.
S	al: (M 3 3 3 3 8 ) 9
	A+ = ABCD
	B+== BCD=A T-SQ (A-A) T-
	$c^+ = c D$
	Dt = D shall of at A should
	Here A is comdidate key

Name of Lecturer :

example:

given R (ABCDE)

FD[ A>B, B+C, C+D, D+E, E+A

Sal:

A+ = ABCDE

B+ = BCDEA

C+ = CDEAR

D+ = DEARC

E' = EABCD

here A, B, C, D, and E are combidate ky or Super Key.

example:

given:

R(ABCDEF IN)

FD[A+B, BC+D, A+E, E+C, EF+4

cheek A is condidate key or not

AT = ABECT

so A is not condidate key



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Lecture Notes	
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R(ABCDEF)	4 + + + + + + + + + + + + + + + + + + +
FD[ AR->C, BC->D, E->F)	
AB-> F , F is member of AB	55 not ?
301: ABT = ABCD	
here F is not member o	f AB+
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