

DBMS Class

Test

classmate

Date _____

Page _____

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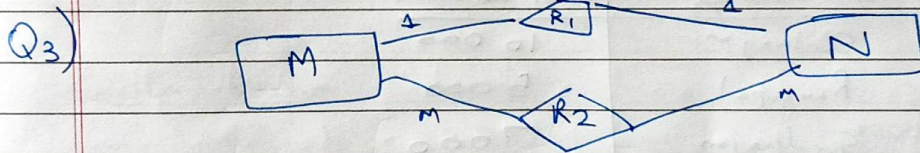
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Pages = 4

Q1) Logical Data Independence.

→ Logical Data Independence is the capacity to change conceptual scheme without having to change external level.

Q2) (C) In a row of a relational table, an attribute can have more than one value.



for $R_1 \rightarrow$ two table $\rightarrow M, N$

for $R_2 \rightarrow$ three table $\rightarrow M, N, R_2$

so total three table.

~~4~~ (d) 3

1

Q4) (b) Primary Key

Q5) The employee salary should not be greater than 50,000

This is an integrity constraint

Q6) S →

Borrower	Bank-Manager
Ramesh	Sundarajan
Suresh	Ramgopal
Mahesh	Sundarajan

T →

Bank-Manager	Loan-Amount
Sundarajan	10 000
Ramgopal	5 000
Sundarajan	7 000

S ⋈ T →

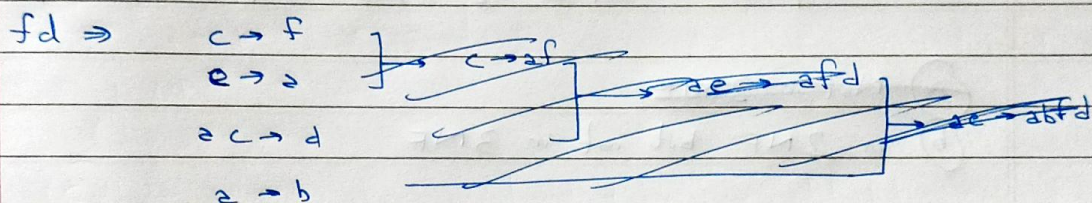
Borrower	Loan Bank-Manager	Loan-amount
Ramesh	Sundarajan	10 000
Ramesh	Sundarajan	7 000
Suresh	Ramgopal	5 000
Mahesh	Sundarajan	10 000
Mahesh	Sundarajan	7 000

∴ (c) 5

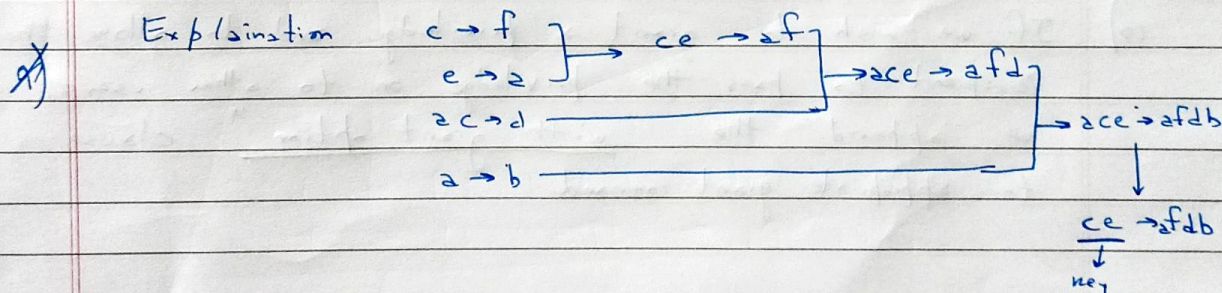
7 c) sum of all employee's salaries

→ requires aggregate function, not possible with
~~basic~~ basic algebra operation

8) $R = a b c d e f$



key = $ec \rightarrow \textcircled{b} ec$



9) scheme $\rightarrow R = STUV$

dependencies $\rightarrow S \rightarrow T$

$T \rightarrow U$

$U \rightarrow V$

$V \rightarrow S$

two decomposition R_1 & R_2 , s.t. $R_1 \cap R_2 = \phi$

~~a) Not in 2NF~~

~~b) in 2NF but not in 3NF~~

c) Not in 2NF

10) If we wish to grant a privilege and to allow the recipient to pass the privilege on to other users, we append the "with grant option" clause to appropriate grant command.