

extra

S. E. Sem IV / R-19 / FH 23 / 15/05/2023

(Comp) Duration: 3hrs

[Max Marks:80]

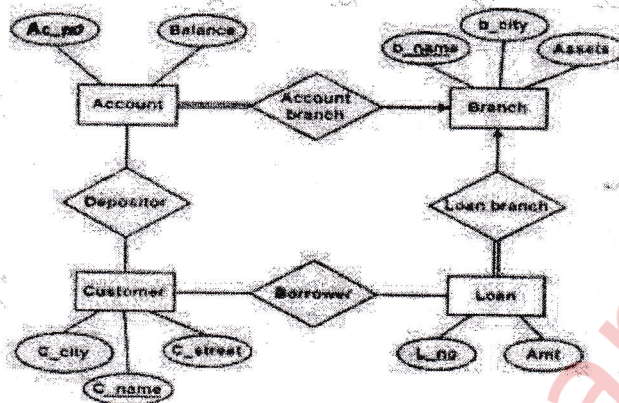
Q.P : 29883

- N.B. : (1) Question No 1 is Compulsory.  
(2) Attempt any three questions out of the remaining five.  
(3) All questions carry equal marks.  
(4) Assume suitable data, if required and state it clearly.

1 Attempt any **FOUR**

[20]

- a Identify different users of database management system  
b Convert following E-R diagram to relational schema



- c Explain all types of integrity constraints with an examples?  
d List all functional dependencies satisfied by the relation.

X	Y	Z
X1	Y1	Z1
X1	Y2	Z1
X2	Y2	Z1
X2	Y2	Z1

- e Discuss Log based recovery with an example

- 2 a Discuss three layer schema architecture with suitable diagram. What is Data Independence? Explain types of data independence.

[10]

- b What is deadlock? Give deadlock prevention methods with suitable example

[10]

- 3 a Construct an ER diagram and convert it into a relational model for a company which has several employees working on different types of Projects. Several employees are working for one department, every department has a manager. Several employees are supervised by one employee. Employees have zero or more dependents

[10]

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