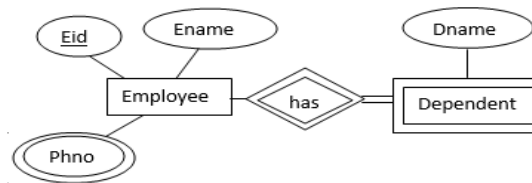


1st DATA BASE ENGINEERING ASSIGNMENTS FOR 4th Semester FOR CSE and DATA BASE MINOR STUDENTS -2017

- Q1. Write the advantages of DBMS over file system?
 Q2. What is Data independence and abstraction?
 Q3. Explain about 3 level architecture of DBMS.
 Q4. What do you mean by Specialization, Generalization and Aggregation in Extended ER Model?
 Q5. What is WEAK Entity and Identifying Relation, Explain with a suitable example?
 Q6. What do you mean by participation constraint and cardinality ratio of a relationship?
 Q7. How many no. of Relation is required to convert the following E-R diagram to Relational model?



- Q8. What are different types of constraints can be applied on a relation schema? Explain.
 Q9. Consider the following Relation Schema R with candidate key. What will be the maximum and minimum no. of Super Key can be possible.
 a) R (A₁, A₂, A₃ A_n) and Candidate Key : {A₁, A₂A₃}
 b) R (A₁, A₂, A₃ A_n) and Candidate Key : {A₁, A₂, A₃}
 c) R (A₁, A₂, A₃ A_n) and Candidate Key : {A₁A₂, A₃}
 Q10. Discuss about Entity integrity constraint and Referential integrity constraints.
 Q11 Assume that, E-R diagram given in Question No.7 is a one-many relationship.
 i. Find the Degree of the relationships, Participation constraint and Cardinality ratio.
 ii. Convert the E-R diagram into relational model.

Q12. How super key, candidate key and primary key are different from each other, explain with example?

Q 13. Consider the given Holiday trip database.

Create the following table using SQL, in the table 'Reserve' sailor_id and boat_id are the foreign key.

- a) Insert some data to all 3 tables.
 b) Find the names of sailors who have reserved a red color boat.
 Sailor (sailor_id, sailor_name, rating, age),
 Boats (boat_id, boat_name, color)
 Reserve (sailor_id, boat_id, day)

Q 14. What are the indicators of a bad relational data base design?

Q 15. What is functional dependency, explain with an example?

N: B- **All the questions in 1st internal examination will be from this assignment only. However, the order and no. of questions in internal exam may vary. So, I expect you all will prepare well.**

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