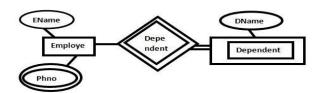
Date: 6<sup>th</sup> Sep 2016 Time: 23:30 Hrs

## 1st DATA BASE ENGINEERING ASSIGNMENTS FOR 5th Semester, ETCE-2016

- 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  $(A_1, A_2, A_3 \dots A_n)$  and Candidate Key:  $\{A_1, A_2A_3\}$
  - b) R  $(A_1, A_2, A_3 \dots A_n)$  and Candidate Key:  $\{A_1, A_2, A_3\}$
  - c) R  $(A_1, A_2, A_3 \dots A_n)$  and Candidate Key:  $\{A_1A_2, A_3\}$
- 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?
- N: B- All the questions in 1<sup>st</sup> 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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