

**School of Computer and Systems Sciences
Jawaharlal Nehru University
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**Database Management Systems (CS-111)
Mid-Semester-I Examination (MCA)
(Winter Semester - 2019)**

**Date: 27-02-2019
Maximum Marks: 20
Weightage: 10 marks
Duration: 1 hour**

All questions are compulsory

Q1 Discuss the disjointness and completeness constraints on Generalization in an E-R diagram with the help of examples?

(4)

Q2 Under what situations a particular concept is modeled as an entity set and not an attribute. Give suitable examples?

(4)

Q3 Compare and contrast each of the following with suitable examples:

- (i) Simple Relationship and Identifying Relationship
- (ii) Super key and Candidate key

(4)

Q4 Justify domain integrity constraint, key integrity constraint, entity integrity constraint and referential integrity constraint?

(4)

Q5 Map each of the following ER representation into relations

- (i). "An entity set with a key, derived, composite and a multivalued attribute"
- (ii). "Unary relationship with cardinality $(0, 1) : (0, M)$ "
- (iii). "binary relationship with the cardinality $(1,1) : (1, M)$ "
- (iv). "binary relationship with the cardinality $(0, N) : (0, M)$ "

(4)