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SYBCA, SEM III, SPECIAL SUPPLEMENTARY EXAMINATION, MAY/JUNE 2015

DATABASE MANAGEMENT SYSTEMS (BCA-302)

Duration: 2 Hours   **Total Marks: 50**

Instructions: 1) All questions are compulsory
2) figures to the right indicate full marks.
3) Write your seat number in the space provided.

Q.1 A) Define the following in one or two sentences   **5*1=5 mks**
a) Data abstraction
b) house holding
c) Data cleansing
d) transaction
e) physical data independence

B) Select the appropriate answer   **5*1=5 mks**

1. _____ is a condition that the database must always satisfy.
    a) assumptions
    b) data conditions
    c) assertions
    d) authorization

2. _____ expresses the number of entities to which another entity can be associated via a relationship set.
    a) cardinality
    b) degree
    c) relationship
    d) instance

3. In the _____ level ,application programs hide the details of data types.
    a) physical
    b) logical
    c) view
    d) all of the above

4. The _____ of a weak entity set is a set of attributes that distinguishes among all the entities of a weak entity.

       a) discriminator

       b) weak key

       c) distinguisher

       d) distributor

5. A derived attribute is represented by _____

       a) ellipse

       b) dashed ellipse

       c) double ellipse

       d) diamond
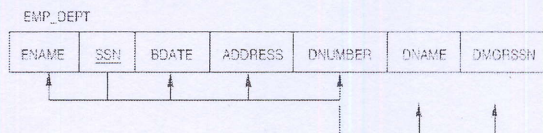
Q.2 Answer the following

a) Explain any two drawbacks of using file systems to store data.   **2 mks**

b) Compare homogeneous and heterogeneous distributed database.   **3 mks**

c) What is a data warehouse? Explain its components in detail.   **5 mks**

Q.3 Answer the following

a) Explain the different attribute types.   **2 mks**

b) Explain specialization with an example.   **3 mks**

c) Model an E-R diagram for a super market. Make assumptions wherever necessary. **5 mks**

Q.4 Answer the following

a) Define DKNF and BCNF   **2 mks**

b) What is a join dependency?Explain good and bad decompositions.   **3 mks**

c) Define 2NF.Decompose the following relation into 3NF   **5 mks**

EMP_DEPT

ENAME	SSN	BDATE	ADDRESS	DNUMBER	DNAME	DMGRSSN

Q.5 Answer the following

a) Briefly explain locks.   **2 mks**

b) What is a schedule? Explain its types.   **3 mks**

c) What is a mobile database.Explain the need for it along with the challenges faced by the mobile computing environment.   **5 mks**

*************** **BEST OF LUCK** ***************