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10SCS13

First Semester M.Tech. Degree Examination, December 2011
Advances in DBMS

Time: 3 hrs. Max. Marks:100

Note: ***Answer any FIVE full questions.***

1 a. What do you mean by NULL value problem in DBMS? Discuss the various reasons that lead to the occurrence of NULL values in relations. Give two examples. **(10 Marks)**

b. What is an object identifier? What primary characteristics should an OID possess? What are its advantages and disadvantages? **(10 Marks)**

2 a. What is the difference between persistent and transient objects? How is persistence handled in typical 00 database systems? Give an example. **(10 Marks)**

b. Discuss structured and unstructured complex objects. Give the differences. **(10 Marks)**

3 a. What are the differences and similarities between objects and literals in the ODMG object model? Give examples. **(10 Marks)**

b. Give the steps involved in mapping from EER to ODL. **(10 Marks)**

4 a. Discuss the inheritance and overloading of functions in SQL. **(06 Marks)**

b. Discuss the design and implementation issues for active databases. **(07 Marks)**

c. Discuss the multimedia database concepts. **(07 Marks)**

5 a. What are the functions that need to be provided by distributed databases in addition to those of centralized DBMS? **(10 Marks)**

b. What is fragmentation? Discuss data fragmentation in distributed database design. **(10 Marks)**

6 a. Explain the different types of distributed database systems. **(08 Marks)**

b. Discuss the query processing in distributed databases. **(12 Marks)**

7 a. Discuss the steps involved in building a data warehouse. **(10 Marks)**

b. Explain the association rules and Apriori algorithm, in detail. **(10 Marks)**

8 a. What are classification rules? How are decision trees related to them? Explain with examples. **(06 Marks)**

b. What are the characteristics of data in GIS? What are constraints present in GIS? **(07 Marks)**

c. List all the characteristics of biological data. **(07 Marks)**

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