USN | | | | | | | | | | **16/17SCS/SIT13**

First Semester M.Tech. Degree Examination, Dec.2017/Jan.2018
Advances in Database Management Systems

Time: 3 hrs.   Max. Marks: 80

Note: Answer any FIVE full questions, choosing one full question from each module.

Module-1

1   a. Define Relational model. Discuss characteristics of relation.   (08 Marks)
    b. Explain the various constraints in Relational model.   (08 Marks)

OR

2   a. Explain the concept of update operations in relational database.   (08 Marks)
    b. Explain the concept of encapsulation of operations.   (08 Marks)

Module-2

3   a. Define ODMG. Explain the concept of Extent, key objects and factory objects in ODMG.
                                                                                        (08 Marks)
    b. Explain the concept of Database Entry point and Iterator variables in OQL.   (08 Marks)

OR

4   a. Explain the concept of mapping EER schema to ODB schema.   (08 Marks)
    b. Differentiate between ODB & RDB in conceptual design.   (08 Marks)

Module-3

5   a. Describe the 3 main architectures for parallel databases.   (08 Marks)
    b. Discuss data fragmentation and replication methods of storing data in distributed databases.
                                                                                        (08 Marks)

OR

6   a. Explain the various architectures for distributed databases.   (08 Marks)
    b. Discuss motivations behind parallel and distributed databases.   (08 Marks)

Module-4

7   a. What is data mining? Discuss the goals of data mining.   (08 Marks)
    b. Discuss Data warehouse and its characteristics.   (08 Marks)

OR

8   a. Explain with algorithm, mining frequent Itemset using association rule mining.   (08 Marks)
    b. Discuss the various OLAP operations on multidimensional data model.   (08 Marks)

Module-5

9   a. Give the syntax summary for specifying triggers in oracle systems.   (08 Marks)
    b. Explain in detail, Temporal Databases.   (08 Marks)

OR

10 a. With an example, explain the generalized model for Active Databases.   (08 Marks)
    b. Explain the different types of multimedia sources.   (08 Marks)

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