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BT-6/M-13   **8607**

ADVANCED DATABASE SYSTEMS
Paper : CSE-324

Time : Three Hours]   [Maximum Marks : 100

Note : Attempt *five* questions in all, selecting at least *one* question from each unit.

UNIT–I

1. (a) Explain types of Interoperation parallelism.
   (b) Define the term Distributed data independence. What does this mean with respect to querying and updating data in presence of data fragmentation and replication ?
   10,10

2. (a) What are Timestamp based concurrency control schemes ? Describe the mechanisms of it in respect of distributed DBMS. What is Multiple granularity locking protocol ?
   (b) How can recovery happen in case of distributed database ? How to handle in-doubt transactions ?
   10,10

UNIT–II

3. (a) Write down the general form of classification and regression rules. Also define support and confidence for them.
   (b) What are Association rules ? How to find them ? What are the uses of association rules ?
   10,10

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4. (a) Explain the method of best-splits. Define the terms Gini measure and Information gain.
   (b) How do we find best splits for an attribute ?   10,10

UNIT–III

5. (a) What are Object databases ? How is inheritance implemented in object databases ?
   (b) What are Collection types ? What is a collection hierarchy ? Explain.   10,10

6. (a) What are Set-valued attributes ? Explain strategies on optimizing queries with set-valued attributes.
   (b) Give some example of object-identity and reference types of SQL. http://www.kuonline.in   10,10

UNIT–IV

7. Explain the concept of transactional workflow. What is failure-atomicity requirement of a workflow ?   20

8. Write short notes on the following :
   (a) Integrated access to multiple data source.
   (b) Representation of geographic data and its queries.
   10,10

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