

#### Unit IV

7. (a) Give an application of data mining.  
Explain different techniques for the  
implementation of data mining. 8
- (b) What are classes of problems in data  
mining ? 7
8. (a) Give a detailed description of Web-  
DBMS architecture along with possible  
advantages and disadvantages. 7
- (b) What is ETL process in data  
warehousing ? What are different stages  
in data warehousing ? How does data  
mining process can be integrated with  
data warehouse system ? 8

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Roll No. ....

**BB-587**

**M.Tech. EXAMINATION, Dec. 2018**

(Second Semester)

(B. Scheme) (Re-appear Only)

(CSE)

CSE558B

ADVANCED DBMS

*Time : 3 Hours]*

*[Maximum Marks : 75*

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Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

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**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. Marks are indicated against each question.

### Unit I

1. (a) During the execution, a transaction passes through several states until it finally commits or aborts. List all possible sequences of states through which a transaction may pass. Explain, why each state transaction may occur. **10**  
(b) What is difference between DBMS and DDBMS ? **5**
2. (a) Show that two phase locking protocol ensures conflict serializability and that transactions can be serialized according to their point locks. **7**  
(b) What benefit is provided by two phase locking ? **8**

### Unit II

3. (a) Explain, how replication or fragmentation of data is useful ? **6**  
(b) Explain the use of heuristics in query optimization. **9**

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4. Consider a distributed deadlock detection algorithm in which sites are organized in a hierarchy. Each site checks for deadlocks local to the site and for global deadlocks that involves descendants' sites in the hierarchy. Give a detailed description of this algorithm argue that the algorithm detects all deadlocks. Compare relative merits of this hierarchical scheme with those of centralized scheme and of fully distributed scheme. **15**

### Unit III

5. (a) List the weakness of RDBMS. **7**  
(b) What are different perspectives of OODBMS ? **8**
6. How does the concept of an object in the object oriented model differ from the concept of an entity in the entity relationship model ? **15**

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**P.T.O.**