

[4458]-777

**B.E. (Computer Engg)**

**ADVANCED DATABASES**

**(2008 Course) (Elective III) (410450)**

**Time : 3 Hours]**

**Max.Marks : 100**

**Instructions:**

- 1) Answers to the two sections should be written in separate books.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Assume suitable data , if necessary.
- 4) Section I: Q1 or Q2, Q3 or Q4, Q5 or Q6.
- 5) Section II: Q7 or Q8, Q9 or Q10, Q11 or Q12.

**SECTION –I**

- Q1) a) Explain in detail Intra-query parallelism. [8]  
b) Explain any two parallel Database Architectures. [8]

**OR**

- Q2) a) Explain design issues in Parallel Database systems. [8]  
b) Describe the benefits and drawbacks of pipelined parallelism. [8]

- Q3) a) What are the different locking protocols used in distributed database [12]  
Explain them in brief.  
b) What are different approaches to store a relation in the distributed database?  
Explain. [6]

**OR**

- Q4) a) Explain distributed query processing in brief. [6]  
b) Write short note on: Distributed transaction. [6]  
c) Compare homogenous and heterogeneous databases with respect to [6]

Distributed database

- Q5) a) What are different components of XML document? Explain with example. [10]  
b) Explain the following terms  
i) XQuery ii)XPath [6]

**OR**

- Q6) a) Write short note on : web services [8]  
b) Describe the various issues for efficient evaluation of XML queries. [8]

**SECTION –II**

- Q7) a) What is meant by OLAP? Explain. [8]  
b) Discuss different data smoothing techniques. [8]

**OR**

- Q8) a) Explain any two operations on data cubes. [8]  
b) Explain Data warehouse architecture. [8]

- Q9) a) Explain apriori algorithm. [10]  
b) Explain outlier analysis. [6]

**OR**

- Q10) a) Explain k means algorithm. [10]  
b) Write short note on: decision tree [6]

- Q11) a) Explain in detail Relevance ranking using terms. [10]  
b) Compare with example homonyms and synonyms . [8]

**OR**

- Q12) Write short notes on: [18]

i) Indexing of documents    ii) Measuring of retrieval effectiveness    iii) Ontologies