Total No. of Questions : 12]

SEAT No. :

P2006

[Total No. of Pages : 3

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B.E. (Computer Engineering)

ADVANCE DATABASES

(2008 Pattern) (Elective - III)

Time : 3 Hours] *[Max. Marks : 100*

Instructions to the candidates:

1) ***Answer 3 questions from Section - I and 3 questions from Section - II.***
2) ***Answer to the two Sections should be written in separate book.***
3) ***Neat diagrams must be drawn wherever necessary.***
4) ***Figures to the right indicate full marks.***
5) ***Assume suitable data, if necessary.***

SECTION - I

Q1) a) State and explain different parallel system architecture **[8]**

b) What factors could result in skew and what can be done to reduce the skew? **[8]**

When a relation is partitioned on one of its attribute by

i) Round Robin partitioning

ii) List partitioning

OR

Q2) a) What is parallelism? Explain the difference between interquery & Intraquery parallelism **[8]**

b) What are the different performance measure parameters in parallel system? Explain in brief. **[8]**

Q3) a) What is deadlock? How it has been handled in distributed system? **[8]**

b) Explain distributed transaction management and its types. **[8]**

OR

Q4) a) Explain the types of storage mechanism and failure in distributed system. **[8]**

b) State and explain distributed system architecture **[8]**

P.T.O.

Q5) a) Why do we have the XML DTD? Explain with an example. **[8]**

b) What is the role of middle tier? How it helps in client server communication? **[10]**

OR

Q6) Write short note on the following. **[18]**

a) XQUERY

b) Thin & Thick Client

c) 3tier architecture

SECTION - II

Q7) a) What are you mean by data cleaning? Explain different methods of data cleaning? **[8]**

b) Explain the components of data warehouse with a neat diagram. **[10]**

OR

Q8) a) Differentiate between OLAP & OLTP. **[6]**

b) Explain the following operation on the multidimensional data **[6]**

i) Roll up and drill down.

ii) slicing & dicing

c) What are different types of schema? Explain the design a galaxy schema **[6]**

Q9) a) What is clustering? Explain the K-means clustering algorithm. **[8]**

b) What is Decision tree? Explain ID3 algorithm to create decision tree. **[8]**

OR

Q10)a) What is frequent item set ? State and explain Apriori algorithm ? **[8]**

b) Explain the following terms **[8]**

i) Machine learning

ii) Outlier analysis.

Q11)a) What you mean by relevance ranking? Explain any methods of relevance ranking **[8]**

b) Explain the following: **[8]**

i) Ontology

ii) Stop words

OR

Q12)a) What is page ranking and popularity ranking? Explain in brief. **[8]**

b) Explain the following terms **[8]**

i) Web crawlers

ii) Vector space model