

M. Tech.-III (Information Technology) (CBCS – 2015 Course) :
WINTER - 2018

SUBJECT- ELECTIVE – II ADVANCED DATABASE MANAGEMENT SYSTEM

Day: Thursday
Date: 06/12/2018

W-2018-3234

Time: 11.00 AM TO 02.00 PM
Max. Marks: 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labeled diagram wherever necessary
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Q.1 What are various types of transparencies in Distributed Database Design? (10)
Explain each with suitable example.

OR

Q.1 What problems can occur in distributed system due to the failure of link and partitioning of network? What are the ways by which recovery can take place? (10)

Q.2 Draw and explain layers of query processing in Distributed Databases. (10)

OR

Q.2 What is query optimization? List distributed Query optimization algorithm and explain any one in detail. (10)

Q.3 Why there is need for benchmarking? What measures are used by Wiscosin benchmarking? (10)

OR

Q.3 Explain following indexing structure: (10)
a. B Trees
b. Hash files.

Q.4 With pipelined parallelism, it is often a good idea to perform several operations in a pipeline on a single processor, even when many processors are available (10)

- a. Explain why
- b. Would the arguments you advance in part a hold if the machine has a shared- memory architecture? Explain why or Why not.

OR

Q.4 Discuss types of parallelism in database system along with their pros and cons. (10)

Q.5 Differentiate concurrency control in centralized database system Vs concurrency control in Distributed Database system (10)

OR

Q.5 Discuss various deadlock management and reliability issues in Distributed Database system. (10)

Q.6 Differentiate between active and deductive databases in detail. (10)

OR

Q.6 What are emerging trends in databases? Explain any three in detail. (10)

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