B. Tech. VII Semester (Main/Back) Examination 2014
COMPUTER ENGINEERING # 7CS6.1 Common with CS & IT
ADVANCE DATABASE MANAGEMENT SYSTEM

Time : 3 Hours   Min. Passing Marks : 24   Maximum Marks : 80

Instruction to Candidates :

Attempt any **five** questions, selecting **one** question from **each** unit. All questions carry **equal** marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)

Unit-'I'

1. (a) Define query optimization and explain its significance for DBMS. [8]

    (b) How heuristic query optimization is performed? Explain with the help of a suitable example. [8]

OR

1. (a) Explain cost based query optimization. [8]

    (b) Discuss different types of parameters that are used in cost functions. Where this information is kept? [8]

Unit-'II'

2. (a) State and explain primary characteristics of OID. [8]

    (b) Explain following terms in Object Oriented Database System.

      (i) Method

      (ii) Signature

      (iii) Message

      (iv) Extent   [8+2×4]

OR

2. (a) State the differences between ownership semantics and reference semantics in structured complex objects. [8]

    (b) Discuss the design differences of a relational data base and an object database. [8]

Unit-'III'

3. (a) How distributed Database-Base management System (DDBMS) is evolved form centralized DBMS? Discuss advantages and disadvantages of DDBMS. [8]

    (b) Why data replication is used in DDBMS? What typical units of data are replicated? [8]

OR

3. (a) Discuss problem area sin DDBMS in concurrency control and recovery. [5]

    (b) Explain voting and election in DDBMS. [5]

    (c) Explain horizontal and vertical paritioning of a relation in DDBMS. [6]

Unit-'IV'

4. (a) List and explain common threats to database security. [8]

    (b) Explain control measures used to provide security to data-Base. [8]

OR

4. (a) What is Statistical Data-base? Discuss security. [8]

    (b) Explain flow control as security measure. Discuss types of flow control. [8]

Unit-'V'

5. Write technical note on:

    (a) Types of XML documents. [8]

    (b) Use of tags in XML versus HTML. [8]

OR

5. Write technical note on:

    (a) Statistical structure of DTD document. [8]

    (b) Difference between XML schema and XML DTD. [8]