MCA (Sem.–2nd)

RELATIONAL DATABASE MANAGEMENT SYSTEM

Subject Code : MCA-202 (2012 Batch)
Paper ID : [B0134]

Time : 3 Hrs.   **Max. Marks :100**

INSTRUCTION TO CANDIDATES :
1. **SECTIONS-A, B, C & D contains TWO questions each carrying TWENTY marks each and students has to attempt any ONE question from each SECTION.**
2. **SECTION-E is COMPULSORY carrying TWENTY marks in all.**
3. Use of non-programmable **scientific calculator** is allowed.

SECTION-A

s various functions and services of DBMS.   (20)

2. Explain the following :

(a) Physical and logical data independence

(b) Strong and Week entities in ER Diagram   (20)

SECTION-B

3. What is normalization? What are its objectives? Discuss various normal forms by taking suitable examples.   (20)

4. Write notes on the following :

(a) Two Phase Locking

(b) Database Recovery Management   (20)

SECTION-C

5. What is Distributed Database Management System? How it is different from centralized DBMS? Discuss various functions and services of distributed databases.   (20)

6. Explain the following :

   (a) Features of Distributed Database Transaction

   (b) Client Server Architecture   (20)

SECTION-D

7. (a) What are various properties of DSS Database? Discuss its importance in business intelligence

   (b) Explain how operational data is different from decision support data.

                                                                      (20)

8. What is OLAP? Explain the characteristic features of MOLAP and ROLAP.
                                                                      (20)

SECTION-E

9.   (i)   Define attribute. What are its different types?

bject Oriented and Object Relational Databases.

      (iii) What is dirty read problem? Explain with an example.

      (iv)   What is a functional and multivalued dependency? Explain with an example.

       (v)   What is an optimistic concurrency control method? Explain.

      (vi)   What is entity integrity rule?

      (vii) What is fragmentation and replication in distributed databases?

     (viii) What are SPSD and MPSD?

      (ix)   What are various characteristics of star schema?

       (x)   List any five database administration tools.