Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

MCA (2015 & Onwards) (Sem.–2)

RELATIONAL DATABASE MANAGEMENT SYSTEM

Subject Code : MCA-202

Paper ID : [72877]

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.**
2. **SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.**

SECTION-A

Q1. What is DBMS? Discuss various advantages of DBMS.

Q2. Explain the following :

a) Physical and logical data independence.

b) Strong and Weak entities in ER Diagram.

SECTION-B

Q3. What is Normalization? What are its objectives? Discuss various normal forms by taking suitable examples.

Q4. Write notes on the following :

a) Two Phase Locking.

b) Database Recovery Management.

SECTION-C

Q5. What is Distributed Database Management System? How is it different from centralized DBMS? Discuss various functions and services of distributed databases.

Q6. Explain the following :

a) Features of Distributed Database Transaction

b) Client Server Architecture

SECTION-D

Q7. a) What are various properties of DSS Database? Discuss its importance.

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

Q8. What is OLAP? Discuss the OLAP architecture in detail.

SECTION-E

Q9. Answer briefly :

a) Define Attribute. What are its different types?

b) Differentiate between Object Oriented and Object Relational Databases.

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

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

e) What is an optimistic concurrency control method?

f) What is entity integrity rule?

g) What is fragmentation and replication in distributed databases?

h) What are SPSD and MPSD?

i) What are various characteristics of star schema?

j) List any five database administration tools.