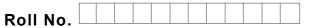
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# M.Sc. (Computer Science) (2015 & Onwards) (Sem.-1) DATABASE MANAGEMENT SYSTEM Subject Code : MSC-103 Paper ID : [A2189]

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.
- 3. Use of non-programmable scientific calculator is allowed.

### **SECTION-A**

- Q1) Explain Three level Architecture of database system with physical and logical independence.
- Q2) What is DBMS? How it is better than File processing system?

# SECTION-B

- Q3) Discuss various Data Models using suitable example.
- Q4) Explain the importance of ERD over other models.

### SECTION-C

- Q5) What do you mean by Normalization? Explain its various forms.
- Q6) Discuss Relational algebra and calculus.

#### **SECTION-D**

- Q7) What is concurrency management? Why it is required & how it is managed explain?
- Q8) Describe the structure of distributed database.



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## **SECTION-E**

#### **Q9)** Answer briefly :

- a) Explain Internal mapping.
- b) Write short note on strong entity.
- c) What are Data control languages?
- d) Explain Functional dependencies.
- e) What are Join dependencies?
- f) Write short note on Database security.
- g) Explain Data Definition language.
- h) Explain Integrity and control.
- i) Discuss De-Normalization.
- www.FirstRanker.com j) Explain different types of relations.