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Total No. of Pages : 02

Total No. of Questions : 09

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.

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.
- j) Explain different types of relations.