

Roll No.

Total No. of Questions : 13]

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J-3178[S-1034]

[2037]

MCA (Semester - 4th)

Relational Database Management System - II (MCA - 401)

Time : 03 Hours

Maximum Marks : 75

Instruction to Candidates:

- 1) Section - A is **compulsory**.
- 2) Attempt any **Nine** questions from Section - B.

Section - A

Q1)

(15 × 2 = 30)

- a) Differentiate centralized and decentralized design.
- b) What is data abstraction?
- c) What are the differences between serial and non serial schedules?
- d) What are the advantages and disadvantages of DDBMS?
- e) What layers of transparency should be provided with a DDBMS?
- f) What is data replication?
- g) What is local mapping transparency?
- h) Describe two phase locking protocol.
- i) What is load balancing?
- j) What are the disadvantages of file server architecture?
- k) Discuss main tasks associated with the administration and management of a data warehouse.
- l) What is warehouse manager?
- m) Describe Codd's rules for OLAP tools.
- n) What is predictive modeling?
- o) Define primary key and super key.

P.T.O.

Section - B

(9 x 5 = 45)

- Q2)** Describe main purposes and activities associated with each stage of database application lifecycle.
- Q3)** Compare and contrast the three phases of database design.
- Q4)** Describe the main advantages of using prototyping approach when building database application.
- Q5)** What is timestamp? How timestamp do based protocols for concurrency control differ from locking?
- Q6)** Explain the types of transparencies in a DDBMS.
- Q7)** Explain single site processing, single site data.
- Q8)** What is meant by term client server architecture and what are the advantages of this approach?
- Q9)** What is TP monitor? What advantages does TP monitor bring to an OLTP environment?
- Q10)** Give diagrammatic representation of architecture and components of data warehouse.
- Q11)** Explain in detail decision support system.
- Q12)** Discuss what online analytical processing is and how it differs from data warehousing.
- Q13)** Explain data mining in detail.

