

ETT

E-009

Roll No. 2035051053

DATA BASE MANAGEMENT SYSTEM

Time : 3 hrs.

2K5-DS-04

M.M. 100

Note :- 1. Part 'A' may be attempted in first 5 pages of Answer Sheet.

भाग 'क' के सभी उत्तर, उत्तर-पुस्तिका के प्रथम पांच पृष्ठों में ही करना हैं।

2. Part 'B' in rest of the Sheets of Answer Sheet.

भाग 'ख' के उत्तर, उत्तर-पुस्तिका के अगले शेष पृष्ठों में लिखिये।

3. Answers may be given in English or Hindi.

प्रश्नों के उत्तर अंग्रेजी अथवा हिन्दी में दीजिये।

PART - 'A'

Q. 1. Attempt any TEN of the following questions :-

(10X2 = 20)

- (1) What is a view? Explain it.
- (2) What is Functional Dependency?
- (3) Illustrate lost update problem with suitable example.
- (4) What is the purpose of file header?
- (5) Describe Wait/Die & Wound/Wait protocols.
- (6) What is an entity?
- (7) Explain compiler?
- (8) What is super key?
- (9) What is normalization?
- (10) What is data independence?
- (11) What is an entity type?
- (12) What is a single valued attribute??
- (13) Define Relational algebra.

Q. 2. Attempt any FIVE of the following questions :

(5X4 = 20)

- (1) What are the advantages of DBMS?
- (2) Explain in detail about various key constraints used in database system?
- (3) Discuss the mechanism of attribute relationship inheritance. How is it useful?
- (4) Explain in detail about time stamp based concurrency control techniques.
- (5) Discuss in detail about the concepts of E-R model with suitable examples.
- (6) Explain using example SELECT, PROJECTION and JOIN operations.
- (7) Draw an ER diagram for hospital management system.

PART - 'B'

Attempt any THREE questions of the following :

(3x20=60)

- Q. 3. Explain in detail about the three tier schema architecture of DBMS.
- Q. 4. State 1NF, 2NF & 3NF and explain with examples.
- Q. 5. Show how to preserve Functional Dependencies during decomposition.
- Q. 6. Explain using example of following relationships:
- (a) Many-to-One
 - (b) One-to-One
 - (c) One-to-Many
 - (d) Many-to-Many
- Q. 7. What is a distributed database? Explain its concepts.