

(CSE/IT 315)

III/IV B.Tech. DEGREE EXAMINATION,
OCTOBER 2005.

First Semester

DATABASE MANAGEMENT SYSTEMS

Time : Three hours

Maximum : 70 marks

Answer question No. 1 compulsorily. (1 × 14 = 14)

Answer ONE question from each Unit.

(4 × 14 = 56)

All questions carry equal marks.

1. (a) Define an attribute. Give an example.
- (b) Define data abstraction.
- (c) What is the need of data redundancy?
- (d) What is meta data?
- (e) Define data manipulation language.
- (f) Define data consistency. Give an example.
- (g) What is Teivial functional dependency?
- (h) What is Null valued attribute?

- (i) What are transaction primitives?
- (j) What is loss less join decomposition?
- (k) What is oracle?
- (l) What is the purpose of DBMS?
- (m) What is the need of data base catalog?
- (n) How do you check user authorization?

UNIT I

2. (a) Explain in detail about transaction manager and the query processor.
- (b) Comparisons between file processing system and DBMS.

Or

- (c) Explain the role of DBA in detail and also write about different types of users.
- (d) Draw an E-R model for banking system and also explain its components.

UNIT II

3. (a) Explain about various SQL languages with examples.

(b) Explain in brief about various data model. Which data model is best suited for data description? Why?

Or

(c) Write in brief about :

(i) Overloading concept

(ii) Polymorphism and inheritance.

(d) Discuss the concept of indexes and hosting with suitable examples.

UNIT III

4. (a) What is the purpose of Normalization? Explain about various normal forms in brief with examples.

(b) What related entities? Explain briefly their relationship.

Or

(c) Discuss about the various data models. Write the advantages and disadvantages of each model.

UNIT IV

5. (a) Explain in detail about atomicity and isolation properties of a transaction management system.

(b) What is transaction state diagram? Explain.

Or

(c) How do you achieve the concurrent execution of transactions, explain any two concurrency control mechanism.

(d) Explain strict 2PL mechanism.