Reg. No. : | | | | | | | | | | |

Question Paper Code: 50845

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Fourth Semester

Information Technology

15UIT405 - DATABASE MANAGEMENT SYSTEMS

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. Which of the following is NOT a basic element of all versions of the E-R model?

   (a) Entities (b) Primary keys (c) Attributes (d) Relationships

2. How many tables may be included with a join?

   (a) 1 (b) 2 (c) 3 (d) none of these

3. If attribute A determines both attributes B and C, then it is also true that

   (a) A → B (b) B → A (c) C → A (d) (B, C) → A

4. Which of the following locks the item from change but not from read?

   (a) Implicit lock (b) Explicit lock (c) Exclusive lock (d) Shared lock

5. The fastest read/write time and most efficient data storage of any disk array type is

   (a) RAID-0 (b) RAID-1 (c) RAID-2 (d) RAID-3

PART - B (5 x 3 = 15 Marks)

6. Who is a DBA? What are the responsibilities of a DBA?

7. What is embedded SQL? What are its advantages?

8. Describe the states of transaction.

9. State the ACID properties.

10. Write the code for Creting a Index with index name Indx on table Person.

PART - C (5 x 16 = 80 Marks)

11. (a) Briefly explain about database definition languages with example. (16)

Or

(b) Draw the E-R diagram for hospital management system. (16)

12. (a) Write in detail about relational algebra with example. (16)

Or

(b) Build a database management system application for banking system. (16)

13. (a) What are Normal forms? Explain the types of normal forms with an example. (16)

Or

(b) Explain in detail about multi valued dependency and join dependency. (16)

14. (a) What is concurrency? Explain it in terms of locking mechanism and two phases commit protocol. (16)

Or

(b) Write short notes on

(i) Transaction concept (8)

(ii) Deadlocks (8)

15. (a) With suitable diagrams, discuss about six RAID levels. (16)

Or

(b) Explain in detail about static hashing. (16)