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

Question Paper Code : 51345

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2014.

Fourth Semester

Computer Science and Engineering

CS 2255/CS 46/CS 1254/080250009/10144 CS 406 — DATABASE MANAGEMENT SYSTEMS

(Common to Information Technology)

(Regulation 2008/2010)

(Common to PTCS 2255 – Database Management Systems for B.E. (Part-Time) Third Semester – Computer Science and Engineering, Regulation 2009)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the three levels of data abstraction?

2. What is an entity?

3. Define a super key.

4. What is a trigger?

5. Define Normalization.

6. What are functional dependencies?

7. Define deadlock.

8. What is meant by serializability?

9. Describe Tuning.

10. What are ordered indices?

PART B — (5 × 16 = 80 marks)

11. (a) (i) What are the functions of database administrator? (6)

(ii) Explain the architecture of a database system. (10)

Or

(b) (i) Write a note on database languages. (8)

(ii) Draw an E-R diagram corresponding to customers and loans. (8)

12. (a) Explain the various operations in relational algebra with examples. (16)

Or

(b) Write a note on :

(i) Embedded SQL (8)

(ii) Distributed databases (8)

13. (a) Explain Boyce Codd Normal form and Fourth Normal forms with suitable example. (16)

Or

(b) Explain first, second and third normal forms with suitable example. (16)

14. (a) (i) Write a note on SQL facilities. (8)

(ii) With a neat Sketch explain the states of a transaction. (8)

Or

(b) (i) Explain the ACID Properties of a transaction. (8)

(ii) Describe two phase locking protocol with examples. (8)

15. (a) (i) Explain magnetic disk and tertiary storage. (8)

(ii) Write a note on Hashing. (8)

Or

(b) Explain the steps involved in query processing. Give examples. (16)

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