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Question Paper Code: 41024

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2015.

Fourth Semester

Computer Science and Engineering

01UCS405 – DATABASE MANAGEMENT SYSTEMS

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. Define normalization.
2. Mention the various types of data models.
3. Explain embedded SQL with an example query.
4. Differentiate static and dynamic SQL.
5. What is data warehousing?
6. What are the ACID properties? Explain them.
7. What are the different types of physical storage media?
8. What is indexing and hashing?
9. What are the types of privileges?
10. List out the steps in data mining.

PART - B (5 x 16 = 80 Marks)

11. (a) What is entity relationship model? List the various symbols in ER model. Explain with a real time example with the different functional dependencies. (16)

Or

(b) What is functional dependency? Explain the various normal forms in detail with examples. (16)

12. (a) (i) What is DML? Explain the various DML queries with examples. (8)

(ii) Explain embedded SQL with a brief example and necessary syntax. (8)

Or

(b) Explain in detail Query optimization and processing with necessary diagrams. (16)

13. (a) With diagrams explain serializability in detail. (16)

Or

(b) (i) What is two phase commit protocol? Explain in detail. (8)

(ii) What is deadlock? How to prevent deadlock? (8)

14. (a) Explain the various levels in RAID with advantages and disadvantages. (16)

Or

(b) (i) Explain Hashing in detail with an example. What is Dynamic and static hashing? (8)

(ii) Explain B+ trees in detail. (8)

15. (a) Explain in detail about cryptography in relation with database security. (16)

Or

(b) Explain in detail about clustering and relevance ranking. (16)

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