Reg. No. :

Question Paper Code: 34205

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

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. Why some functional dependencies are called *trivial*?

2. Mention the various types of data models.

3. Give the general form of SQL Query.

4. Define Query Optimization.

5. How does the recovery manager ensure atomicity of transactions? How does it ensure durability?

6. Justify the need for Concurrency control.

7. What is the need for dynamic hashing?

8. State the advantage of replicating data in a distributed database environment.

9. What are the goals of data mining?

10. What is meant by Association rule?

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)

(b) Describe the architecture of Database system with a neat sketch. (16)

12. (a) What are the basic steps in query processing? Illustrate your answer with a suitable diagram. (16)

Or

(b) Explain in detail about query optimization. (16)

13. (a) During its execution, a transaction passes through several states, until it finally commits or aborts. List all possible sequences of states through which a transaction may pass. Explain why each state transition may occur. (16)

Or

(b) Illustrate the concepts of deadlock prevention techniques. (16)

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

Or

(b) Write detailed notes on mobile and web databases. (16)

15. (a) List and discuss the different issues related to database security. (16)

Or

(b) Explain about distributed database concepts. (16)

————————————

34205