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B.E. / B.TECH. DEGREE EXAMINATIONS, DEC 2019

Third Semester

CS18302 – DATABASE MANAGEMENT SYSTEMS*(Computer Science and Engineering)***(Regulation 2018)****Time: Three Hours****Maximum : 100 Marks**

Answer ALL questions

PART A - (10 X 2 = 20 Marks)

		CO	RBT
1.	Write the characteristics that distinguish the Database approach with the File-base approach.	1	R
2.	How many Aggregate Functions are available there in SQL?	1	U
3.	What are the desirable properties of decomposition?	2	R
4.	List out various Axioms Rules.	2	R
5.	Justify the result of dirty read in transaction processing.	3	C
6.	Distinguish upgrade and downgrade of locks.	3	U
7.	Analyze the need for data fragmentation and list various data fragmentation.	4	AN
8.	Justify hot or lazy swapping is used for crucial data migration in two hard drives.	4	C
9.	Distinguish between threats and risks.	5	U
10.	Illustrate Clustering with example.	5	AP

PART B - (5 X16 = 80 Marks)

11. (a) With a neat diagram, explain internal architecture of Database Management Systems. **(16)** **1** **U**

(OR)

- (b) List different Clauses used in SQL and explain various clauses using SQL queries with suitable case study. **(16)** **1** **U**
12. (a) With suitable diagram and example, explain various mapping cardinalities and total participation. **(16)** **2** **U**

(OR)

- (b) Explain functional dependency in detail with suitable example and how will you overcome the pitfalls in relational database design? **(16)** **2** **U**
13. (a) List and explain various issues while transactions are running concurrently in DBMS. **(16)** **3** **U**

(OR)

- (b) (i) Briefly explain transaction recovery with primitive operations. **(8)** **3** **U**
(ii) Explain Isolation levels in transaction management system. **(8)** **3** **U**
14. (a) How will you handle the drive failure in storage database and explain its features. **(16)** **4** **AN**

(OR)

- (b) Justify with suitable queries, how Query processing and Query optimization is achieved in RDBMS . **(16)** **4** **AN**
15. (a) Analyze and Justify the need for distributed databases, discuss its advantages, disadvantages and its types. **(16)** **5** **AN**

(OR)

- (b) (i) Explain Data warehouse and Data mining with suitable example. **(8)** **5** **U**
(ii) Justify the need for XML databases and explain its features. **(8)** **5** **AN**