Reg. No. :

Question Paper Code: 34205

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Fourth Semester

Computer Science and Engineering

01UCS405 – DATABASE MANAGEMENT SYSTEMS

(Regulation 2013)

Duration: 1.15 hrs   Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. _____ users form their requests in a database query language.

    (a) Naïve   (b) Sophisticated   (c) Specialized   (d) Programmer

2. An instance of a relation that satisfies all real-world constraints is called a _____of the relation.

    (a) logical instance   (b) legal instance
    (c) real instance   (d) perfect instance

3. Which SQL statement is used to extract data from a database?

    (a) SELECT   (b) OPEN   (c) EXTRACT   (d) GET

4. The _____SQL component of SQL allows programs to construct and submit SQL queries at runtime.

    (a) Dynamic   (b) Embedded   (c) Static   (d) None of these

5. _____ property keeps track of old values if failure happens, it restores the old values to make transaction rolled back.

    (a) Durability   (b) Atomicity   (c) Isolation   (d) Consistency

6. A transaction that completes its execution successfully is said to be _____

    (a) Committed   (b) Failed   (c) Aborted   (d) Active

7. In b-tree the number of keys in each node is ____ than the number of its children

    (a) One less   (b) Same   (c) One more   (d) Half

8. What is the minimum number of disks required for RAID1?

    (a) 1   (b) 2   (c) 4   (d) 5

9. A distributed database has the advantages over a centralized database in

    (a) Software cst   (b) Software complexity
    (c) Slow response   (d) Modular growth

10. A distributed database has the advantages over a centralized database in

    (a) Software cst   (b) Software complexity
    (c) Slow response   (d) Modular growth

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11.   Discuss the main characteristics of the database approach and how it differs from traditional file systems.   (8)

12.   What are the basic steps in query processing? Illustrate your answer with a suitable diagram.   (8)

13.   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   (8)

14.   Describe the concepts upon which RAID is built. Define and compare different RAID levels.   (8)

15.   Write short notes on association rules of data mining.   (8)

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