Program: BE Computer Engineering

Curriculum Scheme: Revised 2016

Examination: Third Year Semester V

Course Code: CSC502 and Course Name: Database Management System

Time: 1 hour Max. Marks: 50

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NOTE to the Question Bank Generator:

1. The question bank consists of 25 MCQ questions with each question carrying a maximum of 2 marks. It should cover all the modules with appropriate weightages.

2. You need to check the questions and their answers for their correctness. There should not be any ambiguity in the questions and the options. Only one option should be the Correct Answer.

3. You must ensure that the same question is not repeated again in this question paper.

4. Among 25-questions, 13 questions can be under the ‘Simple’ category, 7-questions can be under the ‘Moderate’ category, and the remaining 5-questions can be under the ‘Difficult’ category.

5. Please do not reveal answer on this Question Paper.

6. Use another template provided to enter the correct answers.

7. Please save this file with file name as per the sample format given below:

File Name: “Date of Examination\_Scheme\_Program\_Semester\_Subject Code\_QP Set Number”

For example:

QP set number 1 of first core course of Mechanical Engineering Semester V for Rev2016 scheme and scheduled on 25/09/2020 has to have the file name as

**2509\_R16\_Mech\_V\_MEC501\_QP1**

QP set number 1 of Department Level Optional Course of Computer Engineering Semester VI for Rev2012 scheme and scheduled on 28/09/2020 has to have the file name as

**2809\_R12\_Comp\_VI\_CSDLO6021\_QP3**

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Note to the students:- All the Questions are compulsory and carry equal marks .

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| Q1.  | A relation is in 2NF  |
| Option A: | If all the non-key attribute should be fully functionally depend on the candidate key.  |
| Option B: | If transitive dependency is present  |
| Option C: | If multivalued functional dependency is present  |
| Option D:  | If join dependency is present |
|  |  |
| Q2. | For the relation R(ABCD) , functional dependency is B → C, D → A. find the candidate key for given relation. |
| Option A: | AD |
| Option B: | BD |
| Option C: | AC |
| Option D: | A |
|  |  |
| Q3. | 4NF is designed to cope with : |
| Option A: | Transitive dependency |
| Option B: | Join dependency |
| Option C: | Multi valued dependency |
| Option D: | Partial Dependency |
|  |  |
| Q4. | Which one of the following is not true for BCNF. |
| Option A: | A relation in BCNF has two or more candidate keys. |
| Option B: | A relation in BCNF has composite candidate keys |
| Option C: | A relation in BCNF has overlapping candidate keys |
| Option D: | A relation in BCNF has based on join dependencies. |
|  |  |
| Q5. | An application where only one user accesses the database at a given time is an example of the following |
| Option A: | single-user database application |
| Option B: | multiuser database application |
| Option C: | e-commerce database application |
| Option D:  | data mining database application |
|  |  |
| Q6. | A relational database consists of a collection of |
| Option A: | Tables |
| Option B: | Fields |
| Option C: | Classes |
| Option D:  | Functions |
|  |  |
| Q7.  | For each attribute of a relation, there is a set of permitted values which is called as |
| Option A: | Domain of attribute |
| Option B: | Relation of attribute |
| Option C: | Set of attributes |
| Option D:  | Schema of attributes |
|  |  |
| Q8.  | Which of the following attributes is suitable to be a Unique Identifier? |
| Option A: | Last name |
| Option B: | Address |
| Option C: | First Name |
| Option D:  | Social Security Number  |
|  |  |
| Q9. | Which of the following is composite attribute  |
| Option A: | Name |
| Option B: | Phone no |
| Option C: | Roll No |
| Option D:  | Age |
|  |  |
| Q10.  | Which of the following WHERE clauses would not select the number 10? |
| Option A: | Where hours <> 10 |
| Option B: | Where hours IN(8,9,10) |
| Option C: | Where hours <=10 |
| Option D:  | Where hours between 10 and 20 |
|  |  |
| Q11.  | When using the LIKE condition, which symbol represents any sequence of characters of any length--zero, one, or more characters? |
| Option A: | $ |
| Option B: | & |
| Option C: | % |
| Option D:  | # |
|  |  |
| Q12.  |  You need to display employees whose salary is in the range of 30000 and 50000. Which comparison operator should you use? |
| Option A: | IS NULL |
| Option B: | IN |
| Option C: | LIKE |
| Option D: | BETWEEN….AND |
|  |  |
| Q13. | You need to change the default sort order of the ORDER BY clause so that the data is displayed in reverse alphabetical order. Which keyword should you include in the ORDER BY clause? |
| Option A: | CHANGE |
| Option B: | DESC |
| Option C: | ASC |
| Option D:  | SORT |
|  |  |
| Q14.  | Evaluate this SQL statement:SELECT e.employee\_id, e.last\_name, e.first\_name, m.manager\_idFROM employees e, employees mORDER BY e.last\_name, e.first\_nameWHERE e.employee\_id = m.manager\_id; |
| Option A: | Remove the table aliases in the order by clause |
| Option B: | Remove the table aliases in the where clause |
| Option C: | Include sort clause |
| Option D:  | Reorder the clauses in the query |
|  |  |
| Q15. | Which operator is used to combine columns of character strings to other columns? |
| Option A: | + |
| Option B: | / |
| Option C: | \* |
| Option D:  | || |
|  |  |
| Q16.  | Collections of operations that form a single logical unit of work are called as  |
| Option A: | Views  |
| Option B: | Networks |
| Option C: | Units |
| Option D:  | Transactions |
|  |  |
| Q17. | Which of the following command is used in transaction control language of SQL |
| Option A: | Commit |
| Option B: | Select |
| Option C: | Done |
| Option D: | Confirmed  |
|  |  |
| Q18. | The situation where no transaction can proceed with normal execution is known as  |
| Option A: | Road block  |
| Option B: | Deadlock |
| Option C: | Execution halt |
| Option D:  | Abortion |
|  |  |
| Q19.  | If a transaction Ti may never make progress, then the transaction is said to be as |
| Option A: | Deadlocked  |
| Option B: | Starved |
| Option C: | Committed |
| Option D:  | Rolled back |
|  |  |
| Q20. | What are the ACID properties of transactions? |
| Option A: | Atomicity, Consistency, Isolation, Durability |
| Option B: | Automatically, Consistency, Isolation, Durability |
| Option C: | Atomicity, Consistency, Inconsistency, Durability |
| Option D: | Atomicity, Concurrency, Isolation, Durability |
|  |  |
| Q21. | A DBMS uses a transaction \_\_\_\_\_\_to keep track of all transactions that update the database |
| Option A: | Log |
| Option B: | Table |
| Option C: | Block |
| Option D:  | Statement  |
|  |  |
| Q22.  | EXCEPT in SQL is analogous to  |
| Option A: | Join operator of relational algebra  |
| Option B: | Intersection operator of relational algebra |
| Option C: | Difference operator of relational algebra |
| Option D:  | Cartesian product of relational algebra |
|  |  |
| Q23. | How is the left outer join symbol represented in relational algebra? |
| Option A: | ⟕  |
| Option B: | ⟖ |
| Option C: | ⟗ |
| Option D:  | ⋈ |
|  |  |
| Q24.  | Which of the operation allows us to find tuples that are in one relation but are not in another relation? |
| Option A: | Union |
| Option B: | Set-difference |
| Option C: | Intersection |
| Option D:  | Cartesian Product |
|  |  |
| Q25. | Which of the following is used to denote the selection operation in relational algebra? |
| Option A: | Pi (Greek) |
| Option B: | Sigma (Greek) |
| Option C: | Lambda (Greek) |
| Option D:  | Omega (Greek) |