**SRM Institute of Science and Technology**

**College of Engineering and Technology**

**DEPARTMENT OF ECE**

SRM Nagar, Kattankulathur – 603203, Chengalpattu District, Tamilnadu

**Academic Year: 2022-23 (ODD/**EVEN**)**

**Test: CLAT-1** **Date: 02/08/22**

**Course Code & Title: 18CSC303J**/ Database Management Systems **Duration:** 1hr

**Year & Sem:** IV year / VII Sem -EKE-M sec **Max. Marks:** 25

**Course Articulation Matrix:**

|  | **18CSC303J/ Database Management Systems** | **PROGRAM OUTCOMES** | | | | | | | | | | | | ***STUDENT OUTCOMES*** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S.NO** | **COURSE OUTCOMES** | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | *1* | *2* | *3* |
| 1 | Acquire the knowledge on DBMS Architecture and Languages | 3 | 2 | 1 | 1 | - | - | - | - | 1 | 1 | 1 | 3 | *-* | *-* | *-* |
| 2 | Apply the fundamentals of data models to model an application’s data requirements using conceptual modeling tools like ER diagrams | 3 | 3 | 3 | 3 | 3 | - | - | - | 3 | 3 | 3 | 3 | *-* | *-* | *-* |
| 3 | Apply the method to convert the ER model to a database schemas based on the conceptual relational model | 3 | 3 | 3 | 3 | 3 | - | - | - | 3 | 3 | 3 | 3 | *-* | *-* | *-* |
| 4 | Apply the knowledge to create, store and retrieve data using Structure Query Language (SQL) and PL/SQL | 3 | 3 | 3 | 3 | 3 | - | - | - | 3 | 3 | 3 | 3 | *-* | *-* | *-* |
| 5 | Apply the knowledge to improve database design using various normalization criteria and optimize queries | 3 | 3 | 1 | 2 | 1 | - | - | 2 | 2 | 2 | 2 | 1 | *-* | *-* | *-* |
| 6 | Appreciate the fundamental concepts of transaction processing- concurrency control techniques and recovery procedures | 3 | 3 | 1 | 3 | 1 | - | - | - | 3 | 1 | 1 | 1 | *-* | *-* | *-* |

| **Q. No** | **PART –A**  **(5X1=5 Marks)** | **Marks** | **BL** | **CO** | **PO** |
| --- | --- | --- | --- | --- | --- |
| **1** | Database is a ….............   1. Collection of Information 2. Collection of data 3. Collection of meaningful information 4. Collection of meaningful interrelated information | **1** | **1** | **1** | **1** |
| **2** | Data abstraction refers to …..........   1. Compressing data 2. Removing redundant data 3. Hiding unwanted irrelevant information to user 4. Putting data into different format | **1** | **1** | **1** | **1** |
| **3** | SQL is a …...........   1. Procedural language 2. Case sensitive language 3. The language for only oracle database 4. Common language for all database | **1** | **1** | **1** | **2** |
| **4** | From the employee database we want to retrieve employees whose salary is less than 10000. The query command will be:   1. SELECT \* FROM emp WHERE Sal < 10000 2. SELECT \* FROM emp Sal > 10000 3. SELECT \* FROM emp WHERE Sal is greater than 10000 4. SELECT \* FROM emp Sal is greater than 10000 | **1** | **2** | **1** | **1** |
| **5** | Truncate command   1. used to delete the records (information) from the base table permanently and keeps the structure of the base table alone 2. delete record and structure 3. delete structure alone and keep record 4. delete one column entry alone. | **1** | **1** | **1** | **2** |
|  | **PART –A**  **(2X10=20 Marks)**  **Instruction: Answer any two** |  |  |  |  |
| **6** | What are the types of SQL commands? Give examples for each.  Write a SQL program statement for creating an employee database and display it with 3 records. | **(5+5=10)** | **3** | **1** | **1** |
| **7** | Derive hierarchical and ER model for online shopping system database with at least two entities. | **(5+5=10)** | **3** | **1** | **2** |
| **8** | Draw the database system architecture and explain. | **(4+6=10)** | **2** | **1** | **1** |

**Course Outcome (CO) and Bloom’s level (BL) Coverage in Questions**

**Approved by the Course Coordinator Signature of the Question paper setter**

**Evaluation Sheet**

**Name of the Student: Register No.:**

| **Part- A (5 x 1= 5 Marks)** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **Q. No** | **CO** | **PO** | **Maximum Marks** | **Marks Obtained** | **Total** |
| **1** | **CO1** |  | **1** |  |  |
| **2** | **CO1** |  | **1** |  |
| **3** | **CO1** |  | **1** |  |
| **4** | **CO1** |  | **1** |  |
| **5** | **CO1** |  | **1** |  |
| **Part- B (2 x 10= 20 Marks)** | | | | | |
| **11** | **CO1** |  | **10** |  |  |
| **12** | **CO1** |  | **10** |  |
| **13** | **CO1** |  | **10** |  |

**Consolidated Marks:**

| **CO** | **Maximum Marks** | **Marks Obtained** |
| --- | --- | --- |
| **1** |  |  |
| **Total** |  |  |

| **PO** | **Maximum Marks** | **Marks Obtained** |
| --- | --- | --- |
|  |  |  |
|  |  |  |
| **Total** |  |  |

**Signature of Course Teacher**

**Signature of the Course Coordinator Signature of the Academic Advisor**