Database		
SOURCE: 01	Database Management System (GATE EXAM)	
01	DBMS Syllabus	
02	Introduction to DBMS (Database Management system) with Real Life Example	
03	File System vs DBMS Disadvantages of File System DBMS Advantage	
04	<u>Tier and 3 Tire Architecture with Real Life Examples</u>	
05	What is Schema How to Define Schema	
06	Three Schema Architecture Three Level of Abstraction	
07	What is Data Independence logical vs Physical Independency	
08	Integrity Constraints in Database with Examples	
09	What is CANDIDATE KEY and PRIMARY Key Full Concept Most Suitable Example	
10	What is Primary Key in DBMS Primary Key with Examples	
11	Foreign Key in DBMS Full Concept with Examples	
12	Insert, Update and Delete from Foreign Key Table Referential Integrity	
13	Question on Foreign Key	
14	Super Key in DBMS	
15	Introduction to ER Model	
16	Types of Attributes in ER Model Full Concept	
17	One to One Relationship in DBMS	
18	One to Many Relationship in DBMS 1-M Relationship	
19	Many to Many Relationship in DBMS M-N Relationship	
20	Question on Minimize Table in ER Mode	
21	Introduction to Normalization Insertion, Deletion, Updating Anomaly	
22	<u>First Normal form in DBMS 1st Normal form</u>	
23	Finding Closure of Functional Dependency in DBMS Easiest and Simplest Way	
24	<u>Functional Dependency and Its Properties in DBMS</u>	
25	Second Normal Form 2NF	
26	Third Normal Form in DBMS with Examples Normalization	
27	Boyce Codd Normal Form BCNF DBMS Normalization with Best Examples	
28	BCNF Always Ensures Dependency Preserving Decomposition and Normalization Examples	
29	Lossless and Lossy Decomposition Fifth Normal Form	
30	All Normal Forms with Real Life Examples 1NF 2NF 3NF BCNF 4NF 5NF All in One	
31	Minimal Cover in DBMS with Cample Canonical Cover	
32	Question on Normalization	
33	How to Find Our the Normal Form Out The Normal Form of A Relation	
34	Cover and Equivalence of Functional Dependencies	
35	Dependency Preserving Decomposition with Example 1	
36	Dependency Preserving Decomposition with Example 2	
37	Introduction to Joins and Its Types Need of Joins with Examples	
38	Natural Join Operation with Example	
39	Self-Join Operation with Example	
40	Equal Join Operation with Example	
41	Left Outer Join Operation with Example	
42	Right Outer Join Operation with Example	
43	Introduction to Relational Algebra	
44	Projection in Relational Algebra	
45	Selection in Relational Algebra	

46	Cross/Cartesian Product in Relational Algebra
47	Set Difference in Relational Algebra
48	Union Operation in Relational Algebra
49	Division Operation in Relational Algebra
50	
	Tuple Calculus in DBMS with Examples
51	Introduction to Structured Query Language All Points Regarding its Features
52	All Types of SQL Commands with Example DDL, DML, DCL, TCL and CONSTRAINTS
53	Create Table in SQL with Execution SQL for Beginners Oracle LIVE
54	ALTER Command (DDL) in SQL with Implementation on Oracle
55	Difference Between ALTER and UPDATE in SQL with Examples
56	Difference Between Delete, Drop and Truncate in SQL
57	Constraints in SQL
58	SQL Queries and Subqueries (Part-1)
59	SQL Queries and Subqueries (Part-2) 2 nd Highest Salary Nested Query
60	SQL Queries and Subqueries (Part-3) Group By Clause
61	SQL Queries and Subqueries (Part-4) Having Clause
62	SQL Queries and Subqueries (Part-5)
63	SQL Queries and Subqueries (Part-6) Use of IN and NOT IN
64	SQL Queries and Subqueries (Part-7) Use of IN and NOT IN in Subquery
65	EXIST and NOT EXIST Subqueries (Part-8)
66	SQL Aggregate Functions – SUM, AVG(n), COUNT, MIN, MAX Functions
67	Correlated Subquery in SQL with Example
68	Difference Between Joins, Nested Subquery and Correlated Subquery
69	Find Nth (1st, 2nd, 3rd,N) Highest Salary in SQL
70	Question on SQL Basic Concepts
71	Introduction to PL-SQL in DBMS
72	Introduction to Transaction Concurrency
73	ACID Properties of a Transaction
74	<u>Transaction States</u>
75	What is Schedule Serial vs Parallel Schedule
76	All Concurrency Problems Dirty Read Incorrect Summary Lost Update Phantom Read
77	Write-Read Conflict or Dirty Read Problem
78	Read-Write Conflict or Unrepeatable Read Problem
79	Irrecoverable vs Recoverable Schedules in Transactions
80	Cascading vs Cascade-less Schedule with Example Recoverability
81	Introduction to Serializability Transactions Concurrency and Control
82	Conflict Equivalent Schedules with Example Transaction Concurrency and Control
83	Conflict Serializability Precedence Graph Transaction
84	Why View Serializability is Used Introduction to View Serializability
85	Shared Exclusive Locking Protocol with Example Concurrency Control Part-1
86	Drawback in Shared/Exclusive Locking Protocol with Example Concurrency Control Part-2
87	Phase Locking (2PL) Protocol in Transaction Concurrency Control
88	Drawbacks in 2 Phase Locking (2PL) Protocol with Example Concurrency Control
89	Strict 2PL, Rigorous 2PL and Conservative 2PL Schedule 2 Phase Locking in DBMS
90	Basic Timestamp Ordering Protocol with Example Concurrency Control
91	How to Solve Question on Timestamp Ordering Protocol Concurrency Control
92	Why Indexing is Used Indexing Beginning
93	Numerical Example on I/O Cost in Indexing Part-1

94	Numerical Example on I/O Cost in Indexing Part-2
95	Types of Indexes Most Important Video on Indexing
96	Primary Index with Example GATE, PSU and UGC NET
97	Clustered Index in Database with Example
98	Secondary Index in Database with Example Multilevel Indexing
99	Introduction to B-Tree and Its Structure Block Pointer, Record Pointer and Key
100	Insertion in B-Tree with Example
101	How to Find Order of B-Tree
102	<u>Difference Between B-Tree and B+ Tree with Example</u>
103	Order of B+ Tree Order of Leaf Node and Non-Leaf Node in B+ Tree
104	Immediate Database Modification in DBMS Log Based Recovery Methods
105	Deferred Database Modification in DBMS Log Based Recovery Methods
106	Like Command in SQL with Example Learn SQL in Easiest Way
107	Basic PL-SQL Programming with Execution Part-1
108	Basic PL-SQL Programming (While, For Loop) with Execution Part-2
109	Single Row and Multi Row Function in SQL
110	Character Function in SQL with Execution Oracle LIVE
111	<u>View in Database Oracle, SQL Server Views Type of Views</u>
112	How Aggregate Functions work on NULL Values
113	What is RAID RAID 0, RAID 1, RAID 4, RAID 5, RAID 6, Nested RAID 10 Explained
114	<u>Various Object in Database Oracle, SQL Server</u>
115	Question Explanation on ER Model
116	Questions on DBMS Basic Concepts and Data Modelling
117	Question on Inner, Left, Right and Full Outer Joins Explanations
118	Question on Advance DBMS BIG Data and Data Warehouse
119	Question on Normalization (Schemas) Explanation
120	Question on Relational Algebra
121	Codd's 12 Rules of RDBMS with Examples
122	CREATE Command (DDL) in SQL with Implementation on ORACLE
123	SEQUENCE in SQL with Syntax and Examples
124	How SQL Query Executes Order of SQL Query Execution
125	Introduction to Hadoop What is Hadoop Hadoop Framework
126	Introduction o BIG Data Small Data vs BIG Data Real Life Example
127	Simple vs Complex vs Materialized Views with Examples
128	Foreign Key with On Delete Cascade with Execution
129	Procedures in PL-SQL Local Procedure vs Stored Procedure
130	How to Fetch Data From Database Using Procedures PL-SQL Procedure
131	%TYPE and %ROWTYPE in PL-SQL with Examples
132	What is Cursor in PL-SQL with Example
SOURCE: 02	Database Design
01	<u>Introduction</u>
02	What is a Database
03	What is a Relational Database
04	<u>RDBMS</u>
05	Introduction to SQL
06	Naming Conventions
07	What is Database Design
08	<u>Data Integrity</u>

09	Database Terms
10	More Database Terms
11	Atomic Values
12	Relationships Relationships
13	One-to-One Relationships
14	One-to-Many Relationships
15	Many-to-Many Relationships
16	Designing One-to-One Relationships
17	Designing One-to-Many Relationships
18	Parent Tables and Child Tables
19	Designing Many-to-Many Relationships
20	Summary of Relationships
21	Introduction to Keys
22	Primary Key Index
23	Look Up Table
24	Super-key and Candidate Key
25	Primary-Key and Alternate-Key
26	Surrogate-Key and Natural-Key
27	Should I Use Surrogate-Keys or Natural-Keys
28	Foreign-Key Process of the Control o
29	NOT NULL Foreign-Key
30	Foreign-Key Constraints
31	Simple-Key, Composite-Key, Compound-Key
32	Review and Key Points Key Points
33	Introduction to Entity Relationship Modeling
34	<u>Cardinality</u>
35	<u>Modality</u>
36	Introduction to Database Normalization
37	1NF
38	2NF
39	<u>3NF</u>
40	Indexes (Clustered, Non-clustered, Composite Index)
41	<u>Data Types</u>
42	Introduction to Joins
43	<u>Inner-Join</u>
44	<u>Inner-Join on 3 Tables</u>
45	Inner-Join on 3 Tables (Example)
46	<u>Introduction to Outer-Joins</u>
47	Right Outer-Join
48	JOIN with NOT NULL Columns
49	Outer Join-Across 3 Tables
50	<u>Alias</u>
51	<u>Self-Join</u>