GIET UNIVERSITY, GUNUPUR

DEPARTMENT OF CSE

SCHOOL OF ENGINEERING AND TECHNOLOGY

DBMS UNIT WISE QUESTION BANK

UNIT -01

1. Objective question

S. No	Question	CO	PO	Marks
1	Data about data is called ------ a) Data b) meta data c) database d) instance	CO1	PO1	1
2	Collection of related data is called ---- a) Database b) data c) metadata d) instance	CO1	PO1	1
3	Storing the data at particular moment of time is --- a) Data b) instance c) database d) schema	CO1	PO1	1
4	Design of a database is called ---- a) Database b) metadata c) schema d) instance	CO1	PO1	1
5	DBMS stands for ---- a) Database Master system b) Database Management System c) Database Management Structure d) Database Master Structure	CO1	PO1	1
6	DBA Stands for ----- a) Database Administrator b) Data Business Analyst c) Data Business Administrator d) Data Business Accountant	CO1	PO1	1
7	Before use of DBMS information was stored using ----- a) Cloud Storage b) Data System c) File Management System d) none of the above	CO1	PO1	1
8	An advantage of the database management approach is a) data is dependent on programs. b) data redundancy increases. c) data is integrated and can be accessed by multiple programs. d) None of the above	CO1	PO1	1

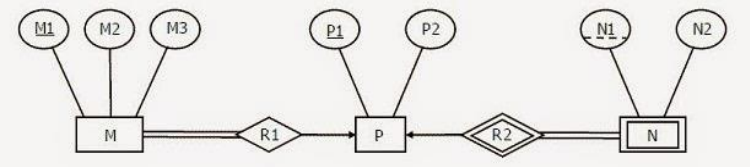
9	A subschema expresses a) the logical view. b) the physical view. c) the external view. d) all of the above.	CO1	PO1	1
10	A DBMS query language is designed to a) Support end users who use English-like commands b) Support in the development of complex applications software c) Specify the structure of a database. d) All of the above	CO1	PO1	1
11	In the relational modes, cardinality is termed as: a) Number of tuples. b) Number of attributes. c) Number of tables. d) Number of constraints.	CO1	PO1	1
12	The view of total database content is a) Conceptual view. b) Internal view. c) External view. d) Physical View.	CO1	PO1	1
13	DML is provided for a) Description of logical structure of database. b) Addition of new structures in the database system. c) Manipulation & processing of database. d) Definition of physical structure of database system.	CO1	PO1	1
14	Architecture of the database can be viewedas a) Two levels b) Four levels c) Three levels d) One levels	CO1	PO1	1
15	The database schema is writtenin a) DML b) DDL c) DCL d) TCL	CO1	PO1	1
16	To delete a particular column in a relation the command usedis: a) UPDATE b) DROP c) ALTER d) DELETE	CO1	PO1	1

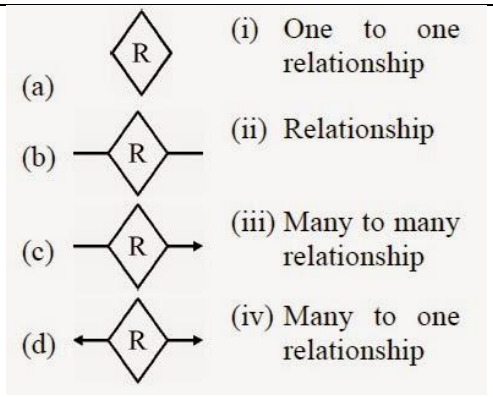
17	Consider a database table R with attributes A and B. Which of the following SQL queries is illegal?
	a) SELECT A FROM R;
	b) SELECT A, COUNT(*) FROM R;
	c) SELECT A, COUNT(*) FROM R GROUP BY A;
	d) SELECT A, B, COUNT(*) FROM R GROUP BY A, B;
		CO1	PO2	1

18	Consider a “CUSTOMERS” database table having a column “CITY” filled with all the names of Indian cities (in capital letters). The SQL statement that finds all cities that have “GAR”	CO1	PO2	1

	somewhere in its name is: a) Select *from customers where city='%GAR%'; b) Select *from customers where city='GAR'; c) Select *from customers where city like '%GAR%'; d) Select *from customers where city as '%GAR';			
19	Manager's salary details are to be hidden from Employee Table. This Technique is called as a) Conceptual level Data hiding b) Physical level Data hiding c) External level Data hiding d) Logical level Data hiding	CO1	PO1	1
20	Which level of Abstraction describes what data are stored in the Database? a) Physical level b) View level c) Abstraction level d) Logical level	CO1	PO1	1

1	In a relational model, relations are termedas a) Tuples. b) Attributes c) Tables. d) Rows.	CO2	PO1	1
2	An entity set that does not have sufficient attributes to form a primary key isa a) strongentityset. b) weak entityset. c) simpleentityset. d) primary entityset.	CO2	PO1	1
3	In an E-R diagram attributes are representedby a) rectangle. b) square. c) ellipse. d) triangle.	CO2	PO1	1
4	Third normal form is based on the concept of _____. a) Closure Dependency b) Normal Dependency c) Transitive Dependency d) Functional Dependency	CO2	PO1	1
5	In E-R Diagram derived attribute are representedby a) Ellipse b) Dashedellipse c) Rectangle d) Triangle	CO2	PO1	1
6	Cross Product isa: a) UnaryOperator b) TernaryOperator c) BinaryOperator d) Not anoperator	CO2	PO1	1

7	An instance of relational schema R (A, B, C) has distinct values of A including NULL values. Which one of the following is true? a) A is acandidatekey b) A is not a candidatekey c) A is aprimaryKey d) Both a and c	CO2	PO1	1
8	A table joined with itself iscalled a) Join b) Self-Join c) Outer-Join d) Equi-Join	CO2	PO1	1
9	Consider the following schemas Branch = (Branch-name, Assets, Branch-city) Customer = (Customer-name, Bank name, Customer-city) Borrow = (Branch~name, loannumber, customer account-number) Deposit = (Branch-name, Accountnumber, Customer-name, Balance) Using relational Algebra, the Query that finds customers who have balance more than 10,000 is_____ a) πcustomer-name (σbalance > 1000(Deposit)) b) σcustomer-name (σbalance > 1000(Deposit)) c) πcustomer-name (σbalance > 1000(Borrow)) d) σcustomer-name (σbalance > 1000(Borrow))	CO2	PO2	1
10	The natural join is equal to: a) CartesianProduct b) Combination of Union and Cartesianproduct c) Combination of selection and Cartesianproduct d) Combination of projection and Cartesianproduct	CO2	PO1	1
11	Consider the following ER diagram. The minimum number of tables required to represent M, N, P, R1, R2 is  a) 2 b) 3 c) 4 d) 5	CO2	PO2	1
12	Match the following:	CO2	PO1	1

	 Codes: (a) (b) (c) (d) a) (iii) (iv) (ii) (i) b) (iv) (iii) (ii) (i) c) (ii) (iii) (iv) (i) d) (iii) (iv) (i) (ii)			
13	Relational calculus isa a) Procedurallanguage. b) Non- Procedurallanguage. c) Datadefinitionlanguage. d) High levellanguage.	CO2	PO1	1
14	In a relational model, relations are termedas a) Tuples b) Attributes c) Tables d) Rows	CO2	PO1	1
15	Relational Algebrais a) Data Definition Language b) MetaLanguage c) Procedural queryLanguage d) None of theabove	CO2	PO1	1
16	3.A command that lets you change one or more fields in a record is : A Insert B Modify C Look-up D All of the above	CO2	PO1	1
17	Which of the following is an aggregate function in SQL? A Union B Like C Group By D Max	CO2	PO2	1

18	Which command is used to add a column to an existing table? A Create B Update C Alter D None of these	CO2	PO1	1
19	. Language used by programmers to communicate with database is : A DML B DDL C QL D None of these	CO2	PO1	1
20	The command to remove rows from a table 'CUSTOMER' is: A. REMOVE FROM CUSTOMER ... B. DROP FROM CUSTOMER ... C. DELETE FROM CUSTOMER WHERE ... D. UPDATE FROM CUSTOMER ...	CO2	PO2	1
21	3.The SQL WHERE clause: A. limits the column data that are returned. B. limits the row data are returned. C. Both A and B are correct. D. Neither A nor B are correct.	CO2	PO2	1
22	A sub query in an SQL SELECT statement is enclosed in: A. Braces -- {...}. B. CAPITAL LETTERS. C. Parenthesis -- (...) . D. Brackets -- [...].	CO2	PO2	1
23	The SQL keyword BETWEEN is used: A. for ranges. B. to limit the columns displayed. C. as a wildcard. D. None of the above is correct.	CO2	PO2	1

24	Which one of the following sorts rows in SQL? A. SORT BY B. ALIGN BY C. ORDER BY D. GROUP BY	CO2	PO2	1

2. Short answer type

S. No	Question	CO	PO	Marks
1	Define data, database, and relational database schema with suitable example	CO1	PO1	2
2	Illustrate any four applications of database in real life.	CO1	PO2	2
3	Write the characteristics of database approach.	CO1	PO1	2
4	Define data models with an example.	CO1	PO2	2
5	Draw the block diagram of a database environment.	CO1	PO1	2
6	Define the following terms: i. meta-data ii. View of data	CO1	PO1	2
7	List the difference between schema and instances.	CO1	PO1	2
8	List and Define the different types of data independency.	CO1	PO1	2
9	Define mapping in 3-schema architecture with example.	CO1	PO1	2
10	Illustrate how the redundancy is controlled by the database approach	CO1	PO1	2
11	Explain DBMS	CO1	PO1	2
12	Outline View in a database.	CO1	PO1	2
13	Who is a DBA? What are the responsibilities of a DBA?	CO1	PO1	2
14	Describe the three levels of data abstraction?	CO1	PO1	2
15	Narrate the disadvantages of File Processing System?	CO1	PO1	2
16	Define and discuss data constraints	CO1	PO1	2
17	What is a data dictionary?	CO1	PO1	2
18	List the advantages of DBMS.	CO1	PO1	2
19	**What are the features of Database language?**	CO1	PO1	2
20	**Define DDL and DML.**	CO1	PO1	2
21	What is SQL stands for and explain features	CO1	PO1	2
22	List the differences between DROP and DELETE	CO1	PO1	2
23	Write the syntax to ADD a column to the existing table	CO1	PO1	2

24	Create a table for Student with following attributes Sid Number, Sname Varchar2,Marks Number and Average Number(3,2).	CO1	PO2	2
25	Describe the components of DBMS	CO1	PO1	2
Module 2				
1	How Relational Calculus is different from Relational Algebra?	CO2	PO1	2
2	In which layer E_R Model is used?	CO2	PO1	2
3	Define Division operation with Relational Algebra.	CO2	PO2	2
4	Name and briefly describe the five SQL built-in functions.	CO2	PO1	2
5	Explain the relationship between entity, entity class, and entity instance?	CO2	PO1	2
6	**Enlist the various relationships of database with suitable example?**	CO2	PO1	2
7	**Define Aggregate functions?**	CO2	PO1	2
8	What is an SQL sub query?	CO2	PO1	2
9	Explain Entity-Relationship model	CO2	PO1	2
10	What do you mean by Specialization and Generalization	CO2	PO1	2
11	What do you meant by integrity constraint	CO2	PO1	2

3. Long questions

S. No	Question	CO	PO	Marks
1	Discuss the various disadvantages of file system and explain how it can be overcome in DBMS	CO1	PO1	5
2	Explain three different groups of data models with examples	CO1	PO1	5
3	With neat diagram, explain the structure of DBMS	CO1	PO1	5
4	What do you mean by data abstraction and explain different levels	CO1	PO1	5
5	Define database language? Write its types?	CO1	PO1	5
6	Explain the database architecture with different layers	CO1	PO1	5
7	What is database life cycle? Discuss in details	CO1	PO1	5
8	Discuss different data models of Database	CO1	PO1	5
9	Define Data independence. Compare between physical and logical data independence.	CO1	PO1	5
10	Who is a DBA? explain responsibilities of a DBA ?	CO1	PO1	5
11	Discuss about 3- level database architecture with diagram?	CO1	PO1	5
12	What is data integrity? Explain the types of integrity constraints	CO1	PO2	5
13	What you mean as mapping cardinalities and explain?	CO1	PO2	5
14	Define DBMS?List the various applications of DBMS	CO1	PO1	5
15	Explain about Data abstraction with its levels ?	CO1	PO1	5

1	What is ER Modelling? Draw an ER Diagram for University Registration System	CO2	PO2	5
2	Compare between relational Algebra and relational calculus with examples	CO2	PO1	5
3	Define Cartesian product and division operator and compare between them	CO2	PO1	5
4	What are aggregate functions? And list the aggregate functions supported by SQL?	CO2	PO1	5

5	Consider the following relation : EMP (ENO, NAME, DATE_OF_BIRTH, SEX, DATE_OF_JOINING, BASIC_PAY, DEPT) Develop an SQL query that will find and display the average BASIC_PAY in each DEPT.	CO2	PO3	5
6	What is aggregation in an ER model? Develop an ER diagram using aggregation	CO2	PO1	5
7	With relevant examples discuss the various operations in Relational Algebras.	CO2	PO1	5
8	Write short notes on the following Transaction Control Statements (TCS),Data Control Language (DCL)	CO2	PO1	5
9	What you mean as enhanced ER Model and discuss about Generalization and specialization	CO2	PO2	5
10	Explain about relational query languages?	CO2	PO1	5
11	Define RDBMS and explain about redundancy and Anomaly?	CO2	PO1	5

4.