Question Bank of Database Systems I

1. **What is DBMS? Or Define DBMS.**
2. **List the various applications of DBMS**
3. **List and explain the various drawbacks of File System.**
4. **Describe the Three-Level of Abstraction.**
5. **Draw an Architecture for a Database System.**
6. **What is Data Model?**
7. **What is Relational DBMS?**
8. **List the typical example of Relational DBMS.**
9. **Define Database Schema.**
10. **List the various steps of Database Design Process.**
11. **Explain any two steps of Database Design Process.**
12. **What is Normalization?**
13. **Explain First Normal Form (1NF).**
14. **Describe Second Normal Form (2NF).**
15. **Explain Third Normal Form (3NF).**
16. **Define Primary Key.**
17. **Define Foreign Key:**
18. **What do you mean by Relationship? List the types of Relationship.**
19. **Explain One-to-One Relationship with suitable example.**
20. **Explain One-to-Many Relationship with suitable example.**
21. **Explain Many-to-Many Relationship with suitable example.**
22. **Give the Description for the following:**
    a. **Format**
    b. **Input Mask**
    c. **Caption**
    d. **Default Value**
    e. **Validation Rule**
    f. **Validation Text**
    g. **OLE Object**
    h. **Lookup Wizard**
    i. **0**

j. #

k. ?

l. C

m. >

n. <

o. Password

p. <=Date( )

q. >=#1/1/2000# and <#1/1/2000#

r. < > 0

s. % (Percent)

t. _ (Underscore)

23. Define Data Manipulation Language (DML).

24. List the various Aggregate Function used in MS-Access.

25. What is Data Definition Language (DDL)?

26. What is Data Manipulation Language (DML)?

27. Define Entity.

28. Define Entity Set.

29. What is Relationship Set?

30. What is Attribute? List the various types of Attributes.

31. What do you mean by degree of Relationship?

32. What is Mapping Cardinality?

33. List the Types of Mapping Cardinality and explain any TWO types.

34. What is Key? Explain Super Key and Candidate Key.

35. What is E-R Diagram?

36. Explain the Symbols used in E-R Diagram.

37. Draw an E-R diagram for Binary Relationship.

38. Draw an E-R diagram for Ternary Relationship.

39. What do you mean by Weak Entity Set?

40. What is Roles in E-R Diagram? Explain with example.

41. Consider the Following Table Student and Answer the questions given below:

Student								
StdID	**StdName**	**DOB**	**Gender**	**Level**	**Semester**	**Address**	**Mobile No**	**FinalMarks**
1	Ali	10-Dec-95	Male	3	1	Erbil	75066612232	65
2	Mohsin	11-Jan-94	Male	3	2	Erbil	75881223123	70
3	Sara	08-Feb-95	Female	4	1	Dohuk	75444333122	81
4	Zara	23-Sep-93	Female	3	2	Dohuk	76665553332	67
5	Samir	18-Mar-95	Male	4	1	Sulaimania	76665554443	77
6	Sawin	11-May-92	Male	3	2	Erbil	75088844434	64

a) Write a query to find StdID, StdName and Level of those Students who are studying in Semester 2.

SELECT StdID, StdName, Level FROM Student WHERE Semetser = 2;

b) Write a query to find StdID, StdName and Address of those Students whose Final Marks are between 65 and 80.

SELECT StdID, StdName, Address FROM Student WHERE FinalMarks BETWEEN 65 AND 80;

c) Write a query to find StdID, StdName and Semester of those students whose Date of Birth is >=11-May-92 and <=10-Dec-95.

SELECT StdID, StdName, Semester FROM Student WHERE DOB >=11-May-92 AND <=10-Dec-95;

d) Write a query to find Average of FinalMarks of Students.

SELECT AVG (FinalMarks) FROM Student;

e) Write a query to find Sum of FinalMarks of Students.

SELECT SUM (FinalMarks) FROM Student;

f) Write a query to find Maximum of FinalMarks of Students.

SELECT MAX (FinalMarks) FROM Student;

g) Write a query to find Maximum of FinalMarks of Students.

SELECT MIN (FinalMarks) FROM Student;

h) Write a query to find total no of records of Students.

SELECT COUNT (*) FROM Student;

i) Write a query to Update the Address as Mosul of those Students who's StdName is Ali.

UPDATE Student SET Address = 'Mosul' WHERE StdName = 'Ali';

j) Write a query to Update the Final Marks as 75 of those Students who's StdID is 4.

UPDATE Student SET FinalMarks = 75 WHERE StdID = 4;

k) Write a query to Delete the record from Student who's StdID is 1.

DELETE FROM Student WHERE StdID = 1;