

Data Base Management System

Time : 3 Hours]

[Max. Marks : 50

Note : Attempt all questions. Each question carries equal marks.

1. Define Data Model. Explain the different types of Data Models with relevant examples.

(a) What are anomalies in DBMS? Write their types.

(b) What is DBMS ? Write various advantages and disadvantages.

2. Consider a movie database in which data is recorded about the movie industry. The data requirements are summarized as follows :

Movies are identified by their title and year of release. They have a length in minutes. They also have a studio that produces the movies and are classified under one or more genres (such as horror, action, drama etc.). Movies are directed by one or more directors and have one or more actors acting in them. The movie also has a plot outline. Each movie has zero or more quotable quotes which are spoken by a particular actor acting in the movie.

Actors are identified by their names and date of birth and act in one or more movies. Each actor has a role in the movie.

Directors are also identified by their names and date of birth and direct one or more movies. It is possible for a director to act in a movie, (not necessarily in a movie they direct).

Studios are identified by their names and have an address. They produce one or more movies.

Design an Entity Relationship diagram for the movie order database.

OR

(a) Discuss various mapping constraints with example.

(b) What are the rules for reducing E-R schema to tables.

3. Write the difference between :

(a) 'where' and having clause.

(b) Truncate, Delete and Drop.

(c) Subquery and Join.

(d) Varchar, Varchar2, Char.

4. How many types of database triggers can be specified on a table ? Write with example.

OR

Write 'normalization techniques upto 3NF with suitable example.

5. (a) Write a PL/SQL procedure that finds the three employees with the highest sales figures in terms of Rupees and prints their numbers and names along with the total sales for each.
- (b) Explain Codd's rules for RDBMS.

OR

- (a) Write short note on oracle tools.
- (b) Explain in brief database security in oracle.

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