


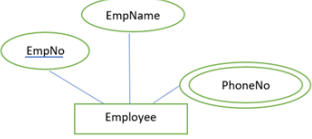


	Unit –I and Unit-II Question Bank
1.	Explain database architecture in brief
2.	State different data models.
3.	Write short note on(any two) <ul style="list-style-type: none"> a. E-R Diagram. b. Data Abstraction. c. Hierarchical Model
4.	How Following Problems are handled with DBMS. i. Data Isolation. ii. Data Redundancy and Inconsistency. iii. Data Integrity
5.	Explain the terms with proper example primary key, super key and candidate key
6.	Explain ‘primary key’ and ‘foreign key’ concepts used in databases What is meant by mapping cardinality?
7.	Draw an E-R diagram for a Bank where customer can have loan & clauses are One customer can have one loan account Many customer can have one loan account One customer can have many loan account Many customer can have more than one Loan account
8.	Explain various component of DBMS system with the help of Diagram
9.	Construct an E R Diagram for a CAR insurance company that has a set of customers each of whom owns one or more cars. Each car has associated with it zero to any number of recorded accidents.
10.	Compare DBMS and file processing system with following points <ul style="list-style-type: none"> i) Redundancy ii) Access Control iii) Data Integrity
11.	Explain the following terms Weak Entity Mapping Cardinality Super Key
12.	Explain Different DDL and DML commands with examples.
13.	What is layered architecture of DBMS systems? How does it archive logical and physical independence?
14.	It is said that file systems lack of data independence Give your comments?
15.	Explain the functions of database administrator
16.	What is need by mapping cardinality? For a binary relationship set what are the possible mapping cardinalities? Explain with diagrams
17.	State advantage of a DBMS over file-processing systems
18.	Explain data abstraction with different levels of abstractions
19.	Explain data independence
20.	Explain following data models :Hierarchical Network,ER and Object Relational Model
21.	Construct an ER diagram for a hospital with a set of patients and a set of medical doctors. Associate with each patient a log of the various tests and examinations conducted.
22.	Design an E-R diagram for keeping track of the exploits of your favorite sports team. You should store the matches played, the scores in each match, the players in each match and individual player statistics for each match. Summary statistics should be modeled as derived attributes.

23.	Consider a database used to record the marks that students get in different exams of different course offerings. Construct an E-R diagram that models exams as entities, and uses a ternary relationship, for the above database
24.	For the database system to be usable, it must retrieve data efficiently. The need of efficiency has led designers to use complex data structures to represent data in the database. Developers hides this complexity from the database system users through several levels of abstraction. Explain those levels of abstraction in detail
25.	Construct an alternative E-R diagram for above requirements given in Q.1(a) that uses only a binary relationship between students and courseofferings. Make sure that only one relationship exists between a particular student and course-offering pair, yet you can represent the marks that a student gets in different exams of a course offering
26.	Consider insurance database with following schema :person(driver-id, name, address) car(license, model, year) accident (report - no, date, location) owns(driver-id,license) participated(driver-id,car,report-no,damage-amount) draw the E-R Diagram for the same.
27.	Any database system to be good relational database system, codds have proposed 12 rules, explain any 2 rules proposed by codd with example
28.	Assume we have the following application that models soccer teams, the games they play, and the players in each team. In the design, we want to capture the following : [5] • We have a set of teams, each team has an ID (unique identifier), name, main stadium, and to which city this team belongs. • Each team has many players, and each player belongs to one team. Each player has a number (unique identifier), name, DoB, start year, and shirt number that he uses. • Teams play matches, in each match there is a host team and a guest team. The match takes place in the stadium of the host team. • For each match we need to keep track of the following: ° The date on which the game is played ° The final result of the match ° The players participated in the match. For each player, how many goals he scored, whether or not he took yellow card, and whether or not he took red card. ° During the match, one player may substitute another player. We want to capture this substitution and the time at which it took place. • Each match has exactly three referees. For each referee we have an ID (unique identifier), name, DoB, years of experience. One referee is the main referee and the other two are assistant referee. Design an ER diagram to capture the above requirements. State any assumptions you have that affects your design.
29.	Draw the overall Database System Structure. Explain Storage manager, transaction manager and query processor in detail
30.	Explain with suitable example what physical data independence is? Also Explain its importance
31.	Consider the following tables: Course (Course_id, Course_name) Teacher (Teacher_id, Teacher_name) Assigned_to (Teacher_id, Course_id) a) Draw E-R Diagram for above scenario a) How many tables will be created using the above scenario? b) What will be the foreign key?
32.	Explain the concepts of Referential Integrity Constraint and Entity Integrity Constraint with example.
33.	Differentiate between [4] i) Logical & physical data independence. ii) Strong entity set & Weak entity set
34.	Design a generalization-specialization hierarchy for a motor-vehicle sales company. The company sells motorcycles which have an engine number & cost; cars which have chasis number, an engine number, seating capacity & cost; trucks which have chasis number, an engine number & cost.
35.	Discuss with examples about various types of attributes present in the ER model.
36.	Specify codd's Norms to be satisfied by RDBMS?
37.	Explain the problems that may arrive if the DBA doesnot discharge the responsibilities properly?

38.	<div></div> <p>Translate E-R to table</p>
39.	
40.	