Swastik Ghosh

1)

Data	Information
a) A collection of facts	a) It is the result after analysing data
b) Can be unorganized	b) It is organized and helps to make a Solution.

2) Data Integrity :-

Data integrity refers to the integrity completeness of data. Peropose of data integrity is to protect validity of data and information in the database. It ensures the data quality in the database.

*) Data redundancy :-

If the same data item is stored more than once in a data bases, called data redundancy

4) Function of DCL of DBMS

Allowing different data base users to use a secitic part of the data base.

5) Super key :-

The set of Attributes that can uniquely identify a tupe is know superkey.

ex → STUD_NO

*) Database language, is a special type of programming language used to detine and manipulate a 'database.

6) Physical schema	Logical schema
a) It define how data is represented in DBMS and how data is stored in data base	a) It define all logical constraints applied how to store data
b) It is a difficult structure	b) It is easily understood in computer system

7) Data Manipulation Language or DML is a subset of operations used to Insert, delete and update in ~~data~~ database.

Example of DML statement :-

Insert - Record is inserted in the table with the help of this instruction

Delete - This instruction deletes the table record.

8) MetaData is a type of data that describes any other data.

Difference between DBL and DML

DBL	It deals with data is stored in the database and aids in defining the structure or schema of a Data base	DML	It enables us to manipulate data that is kept in the database, including retrieving, update and delet.

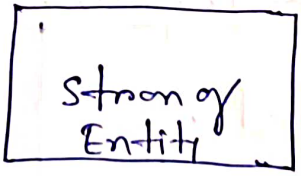
9) Types of Entity :-

1) Strong Entity type
2) Weak Entity type.

Strong Entity type :-

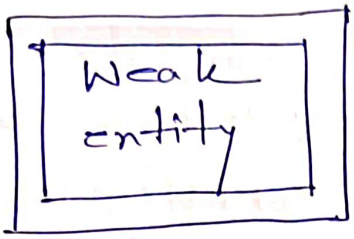
A strong entity is one that is not reliant on other entity in the schema A primary key is always present in a strong entity.

When various strong entities are united, they form a strong entity set.



Weak entity :-

There is no key Attribute in Weak entity. It is distinct identity is reliant on the presence of another strong entity



Type of Attributes :-

1) Simple Attribute & Composite Attribute :-

*) Simple Attributes are the ones with atomic values. Which cannot be devided further, while Composite attributes Consist of more than one simple attribute.

2) Single valued and Multi-valued Attribute :-

This divide is based on the attribute ability to take multiple values. A Multi valued attribute is one the can accept more than one value. A single valued attribute is one that accepts only one value.

3) Stored Attribute and Derived Attribute:

This classification is based on whether the attribute is simply stored in the database or if it may be derived from another attribute.

4) key attribute and Non key Attribute.

This classification is based on whether or not the attribute may be used to uniquely identify the entities. As the name implies, key attributes will be able to uniquely identify. but non key attributes will be unable to do so.

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10) An insertion Anomaly is the inability to add data to the database due to the absence of other data.

*) ~~A~~ ~~B~~ Type is one

of the most used components of database Managment system. A type in a database managment system is essentially a row with linked data about a certain entity.

13) a)

```
SELECT    ROOM.RoomNo , HOTEL.Name
FROM      HOTEL , ROOM
WHERE     HOTEL.HotelNo = ROOM.HotelNo
AND       ROOM.Charge < 1000;
```

b)

```
SELECT    GUEST.Name , BOOKING.RoomNo
FROM      GUEST , BOOKING , HOTEL
WHERE     HOTEL.HotelNo = BOOKING.HotelNo
AND       GUEST.GuestNo = BOOKING.GuestNo
AND       GUEST.GuestNo = BOOKING.HotelNo
AND       HOTEL.Name = 'SeaView'
AND       Date BETWEEN BOOKING.DateFrom
          And BOOKING.DateTo;
```

c)

```
SELECT    HotelNo, COUNT(*) As RoomCount
FROM      ROOM,
GROUP BY  HotelNo.
```