

ID

14601

Name

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Subject

Data base

Semester

4th BS (SE)

Exam

MID

Teacher

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Question no 1

Part 1,

Candidate key:

A candidate key is an attribute or combination of attributes and column or a set of column in a table that can uniquely identify.

So in the following table the student ID and the cell phone number is the candidate key. Because the ID and the cell phone number can uniquely identify the student.

Question '1' part '2'

Data Redundancy:

Data redundancy is a condition created with in a data base or data storage technology in which the same piece of data is held in two or more separate places.

For example

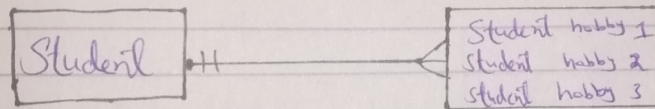
Two different fields with a single data base.

Question '1' part '3'

Multivalued attribute:

Multivalued attribute is that entity which have more than one attribute at one time.

Conceptual Model of Multivalued attribute:



In this example a student with a multiple hobbies. Mean Single Entity with a multivalued attributes.

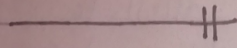
Question '1' Part '4'

Reduced maintenance in database approach:

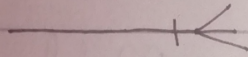
Make sure that all the modules accessing the table are well covered with automated tests. Create new tables. Alter all procedures that modify the old table. So that they modify both old and new tables. Migrate existing data into new structure.

Question 1 Part '5'

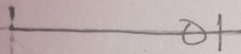
1) Mandatory one using ER diagram



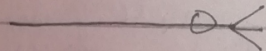
2) Mandatory many using ER diagram



3) Optional one using ER diagram



4) Optional many using ER diagram



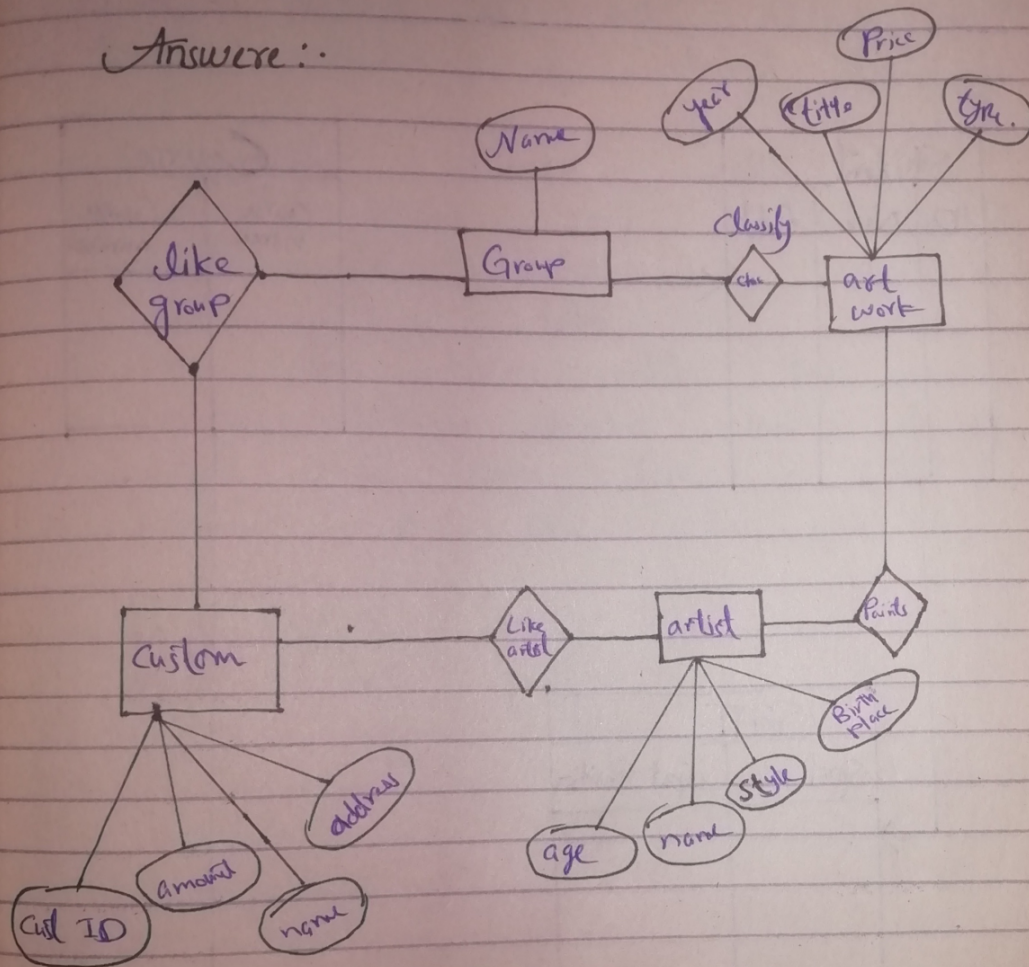
Question 1 Part '6'

Need of backup:

The DBMS should provide backup facilities that produce a backup copy of the entire database. The copy should be started in a secured location. When it is protected from loss or damage.

Question no '2'

Answer:.



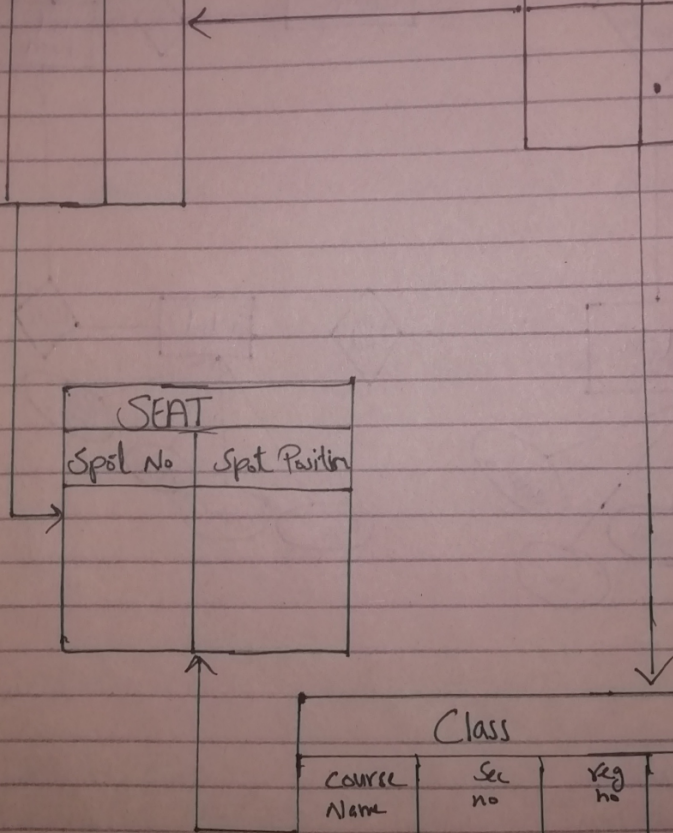
Question no (3)

Student		
ID	Name	Addr

Course	
Course name	Course number

SEAT	
Spot No	Spot Position

Class			
Course Name	Sec no	Reg no	Class date time



→ In the student entity student name, student ID and address is the column of student table.

→ In the course entity the course Name and course number is the column of course table.

→ In the class entity the course-Name - Section-Number - Number of reg and class, time, date is the column of the class table.

→ In Seat entity the seat number and seat position is the column of the table.