SE-computer(Div-B)	Roll number : 8942
Experiment no. : 1	Date of Implementation : 16/04/2021

Related Course outcome : At the end of the course, Students will be able to design ER model and develop relational model

Rubrics for assessment of Experiment:

Indicator	Poor	Average	Good
Timeliness • Maintains assignment deadline (3)	Assignment not done (0)	One or More than One week late (1-2)	Maintains deadline (3)
Completeness and neatness • Complete all parts of ER diagram(3)	N/A	< 80% complete (1-2)	100% complete (3)
Originality • Extent of plagiarism(2)	Copied it from someone else(0)	At least few questions have been done without copying(1)	Assignment has been solved completely without copying (2)
Knowledge • In depth knowledge of the assignment(2)	Unable to answer 2 questions(0)	Unable to answer 1 question (1)	Able to answer 2 questions (2)

Assessment Marks :

Timeliness	
Completeness and neatness	
Originality	
Knowledge	
Total	

Total :   (Out of 10)

Teacher's Sign :

Name Student	GINI CHACKO	Roll No.	8942

Lab Experiment No.	1		Date	16/04/2021
Expt. Title	Problem Definition and draw ER /EER diagram			
Tool Used :	draw.io. or Lucidchart			

Aim : Problem Definition and draw ER /EER diagram
Objective of the Experiment:
1. Defining problem statement.

Theory : (Sample Problem statement-Advertising agency)
An "Advertising agency" is a service business dedicated to creating, planning, and handling advertising for its "clients or customers" Here clients are "companies" and that companies produce "products". This product needs print or television or Internet ads in order to increase their sales in the market. An Advertising agency independent from the client and provides an outside point of view to the effort of selling the client's products or services. An agency can also handle overall marketing and branding strategies and sales promotions for its clients. Inside Advertising agency mainly three departments are there. They are

1. CUSTOMER RELATIONSHIP DEPARTMENT

This department takes the orders from clients in order to give ads on their products.

2. FINANCE DEPARTMENT

" Finance department " deals with the finance matters between clients and Advertising agency just like how much money client paid at initial time and what is the balance amount and what is the last date to pay balance etc..

3. CREATIVE DEPARTMENT

Creative department is a department where "employees" creates the actual ads from the core of an advertising agency. Creative department frequently work with "productionstudios" to develop and implement their ideas.

In Ad agency large number of "employees" exists. For example (i) Creative, drawing artists & copy writers work in creative department. (ii) Account manager handles finance department. (iii) .Branch manager handle ad branch etc. for these employees "dependents" may also exists.

Sample E-R diagram:-
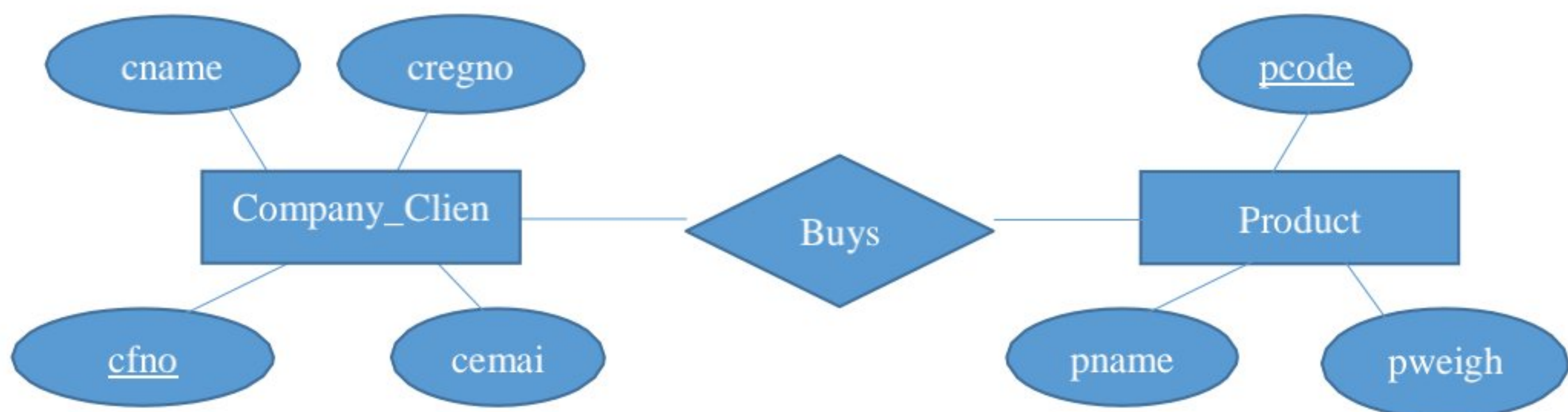
DESCRIPTION OF PROBLEM STATEMENT:

Topic: <u>COLLEGE INFORMATION MANAGEMENT SYSTEM</u>

- A College contains many sections.
- Each Section can offer any number of Courses.
- Many Staff can work in a Section.
- A Staff can be a Lecturer or Administrator but not both.
- A Lecturer can work only in one Section. For each section there is a Head.
- A Lecturer can be head of only one Section.
- Each Lecturer can take any number of Courses.
- A Course can be taken by any number of Lecturers.
- A Student can enroll for any number of Courses.
- Each course can have any number of students.
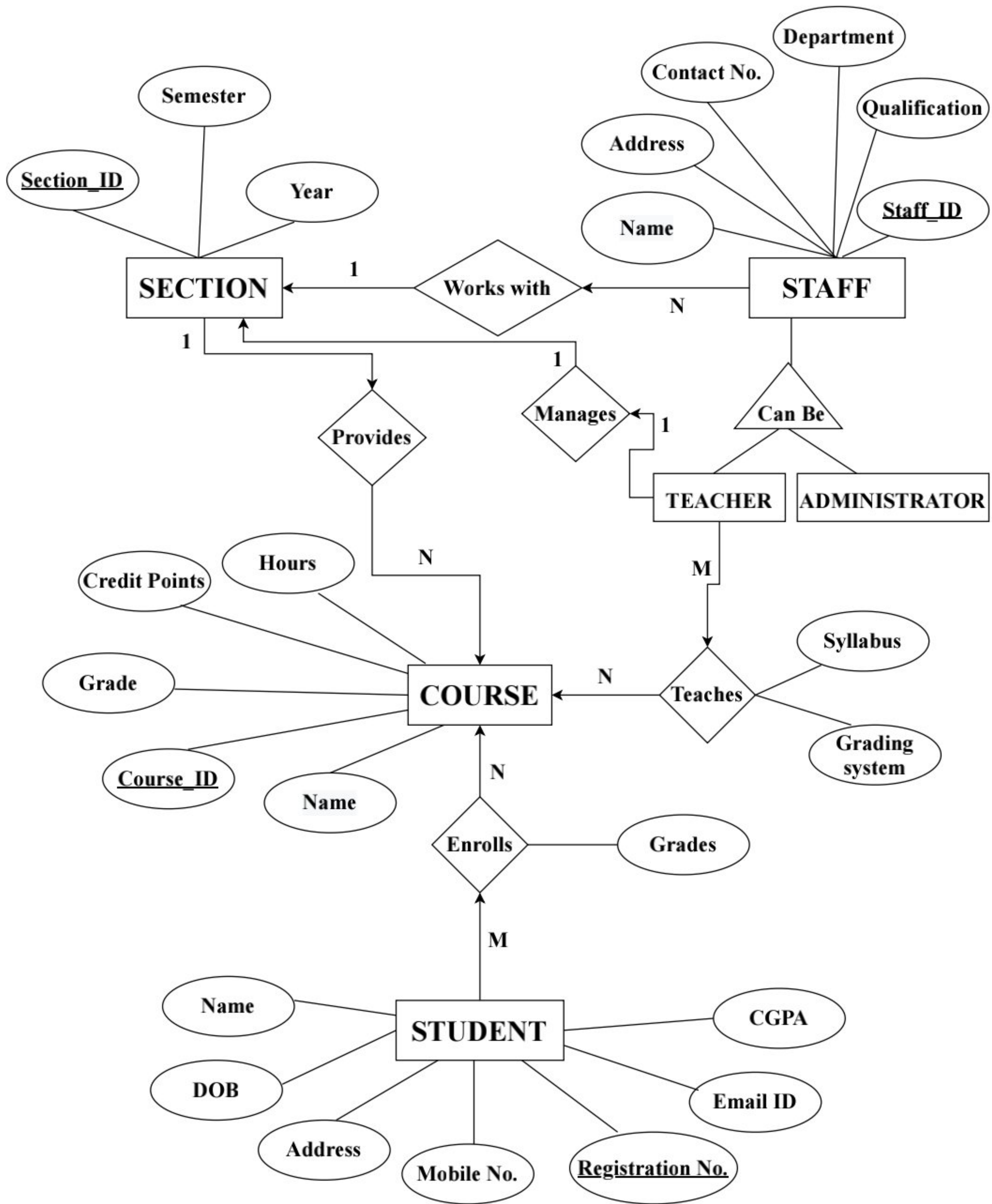
ER Diagram Of
College Information Management System
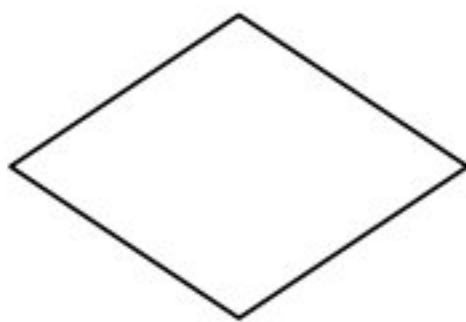
POSTLAB QUESTION:

1. Describe the various symbols used in the ER diagram.
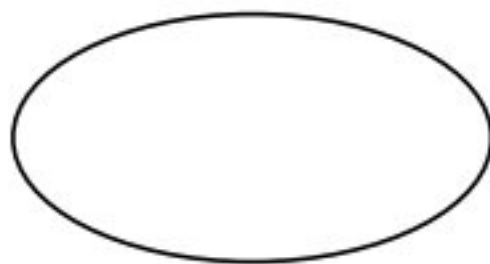
Ans:

ENTITY
An entity can be a person, place,event, or object
that is relevant to a given system. Entities are represented in ER diagrams by a rectangle and named using singular nouns.
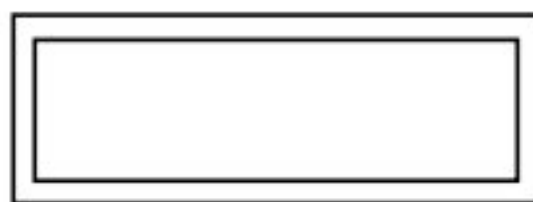
RELATIONSHIP
A relationship is defined as a bond or attachment
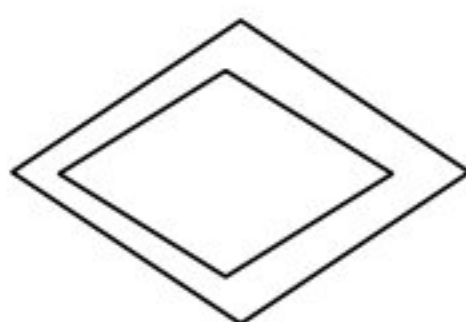between two or more entities. Normally, a verb in a sentence signifies a relationship.

ATTRIBUTE
Each entity has a set of properties.
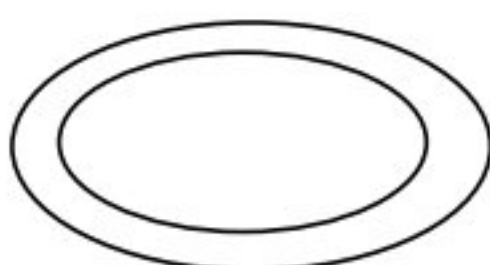These properties of each entity are termed as attributes. Attributes are indicated by ovals in an e-r diagram.

WEAK ENTITY
A weak entity does not have a primary key attribute and depends on other entity via a foreign key attribute.
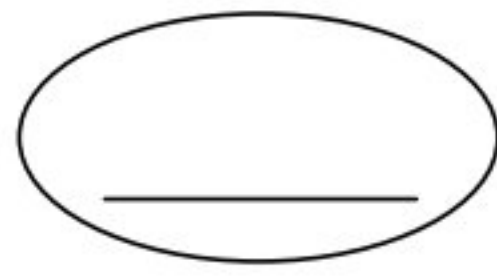
WEAK ENTITY RELATIONSHIP
The relation between one strong and one weak entity is represented by double diamond.
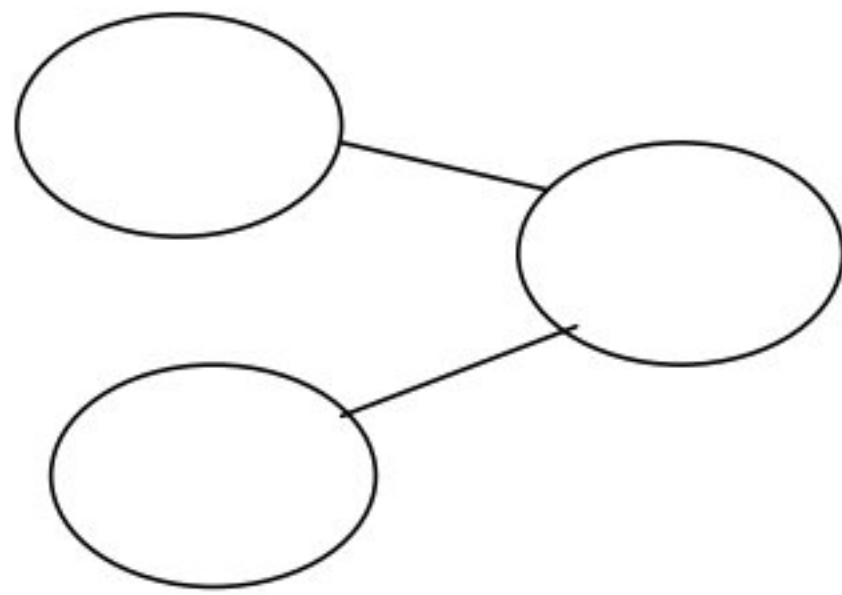
MULTIVALUED ATTRIBUTE
An attribute which can hold more than one value, it is then termed as multi-valued attribute.

KEY ATTRIBUTE

A key attribute is the unique characteristic of the entity. For eg, Course_ID is the key attribute of the entity Employee.

COMPOSITE ATTRIBUTE

A composite attribute can be subdivided into smaller   components which further form attributes. For example, 'name' attribute of an entity "person" can be broken down into first name and last name which further form attributes.