

TASK 01

①

Title conceptual design using ER model - hospital management system

Steps involved in creating ER diagram

Step 1:

Problem understanding is domain analysis

* Analyze the real world application - health care management system

* Understanding the domain: Hospitals, patients

doctors, appointments, prescriptions

major components

Step 2:

Identify major entities

Entities are core components representing objects

(or) concepts in the system

Patient, doctor, appointment, medicine

appointment details, prescription, medicine

prescription

medicine

department

Step 3: Identify attributes for each entity

Example of attributes

entity attributes

Patient patient ID, Name, Age, gender, phone

address, doctor, doctor ID, name, speciality

Contact No, department ID [fk]

Appointment APPoinTME^T

ID, Date time

Prescription PREscRIPtION

ID(PK), APPoID(PK)

Diagnosis NOTES

Medicine MEDICINE ID(PK), Name dosage, Manufactur

Department:- DEPARTMENT ID(PK) NAME TO CODE

* A patient books one or more appointments

* A doctor conducts many appointments

* An appointment generates one prescription

* A prescription includes many medicines

* A doctor belongs to one department

Step 5:- Draw ER diagram using draw

Instructions: draw boxes for entities

* choose blank diagram -> check created

* from left panel, drag the following

* use rectangles for entities (Patient, Doctor)

* use ellipses for attributes (Name, Age, etc)

* use diamonds for relationships (Books, code)

* connect using lines, straight & lines for relationship connections

* use PK or underline to denote primary

* use double ellipse for multivalued attrib

* use labels such as one-to-one, one-to-many, etc

Example Relationships! (3)

- Patient (1) - books → (M) APPOINTMENT
- Doctor (1) - conducts → (M) APPOINTMENT
- APPOINTMENT (1) - generates → (1) PRESCRIPTION
- PRESCRIPTION (1) - includes → (M) MEDICINE

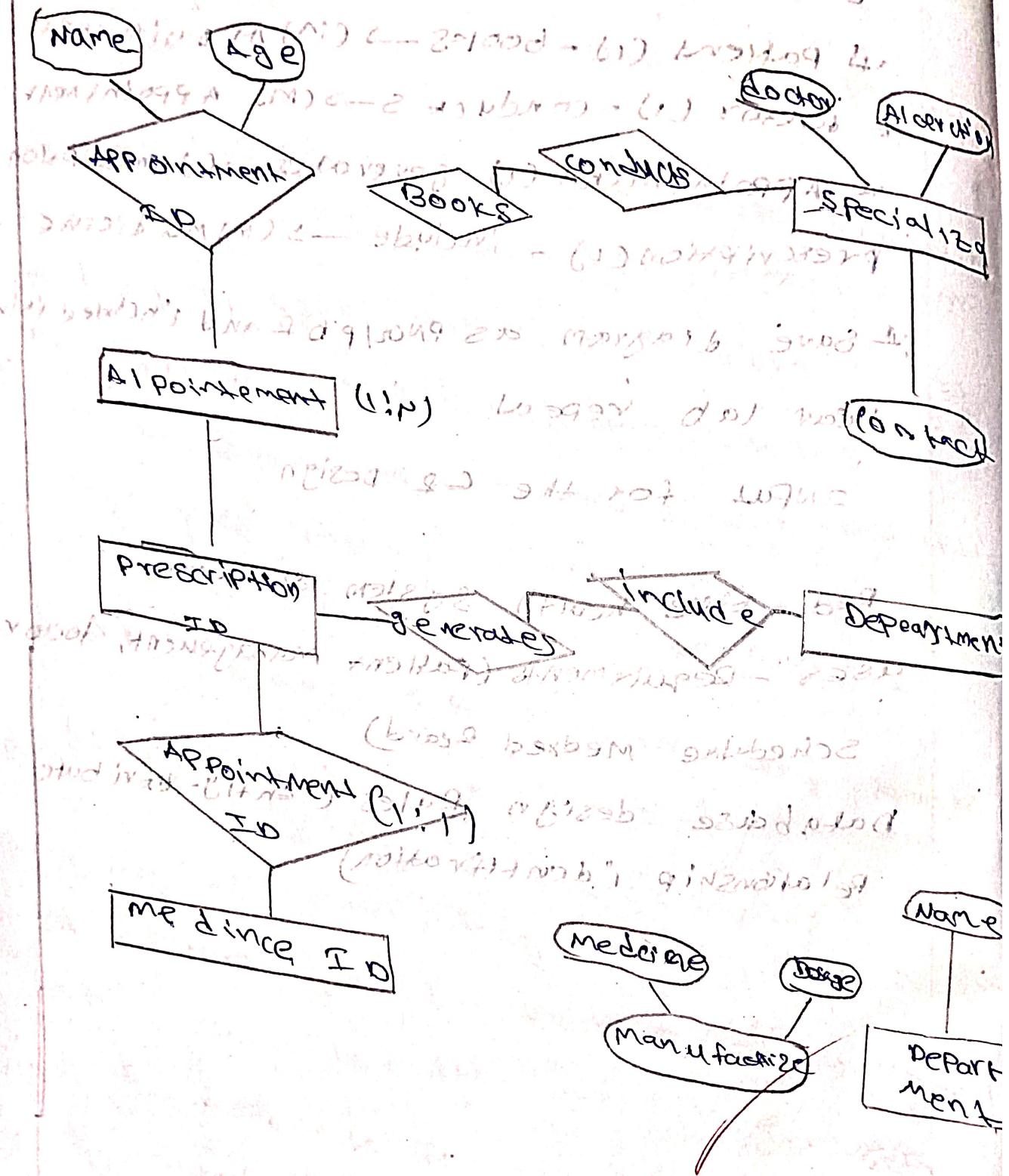
✓ Save diagram as PDF/PDF and included it in
Year lab report (will be assessed)

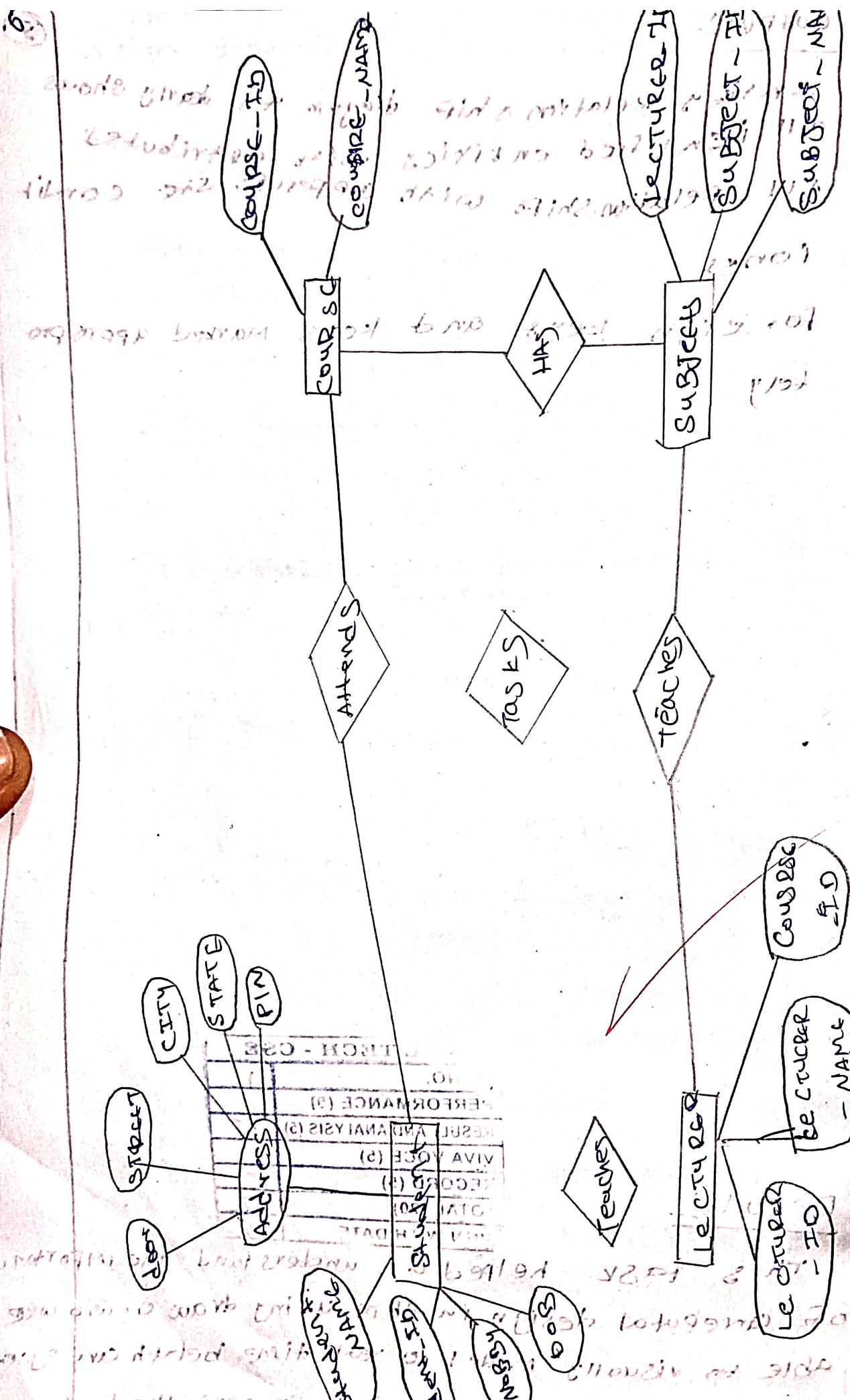
INPUT for the ER design

Red - time health system scenario
User - Requirements (Patient Management, doctor
Schedule MedEx Record)
Database design Rules (entity-attribute
Relationship identification)

④

astp diagram

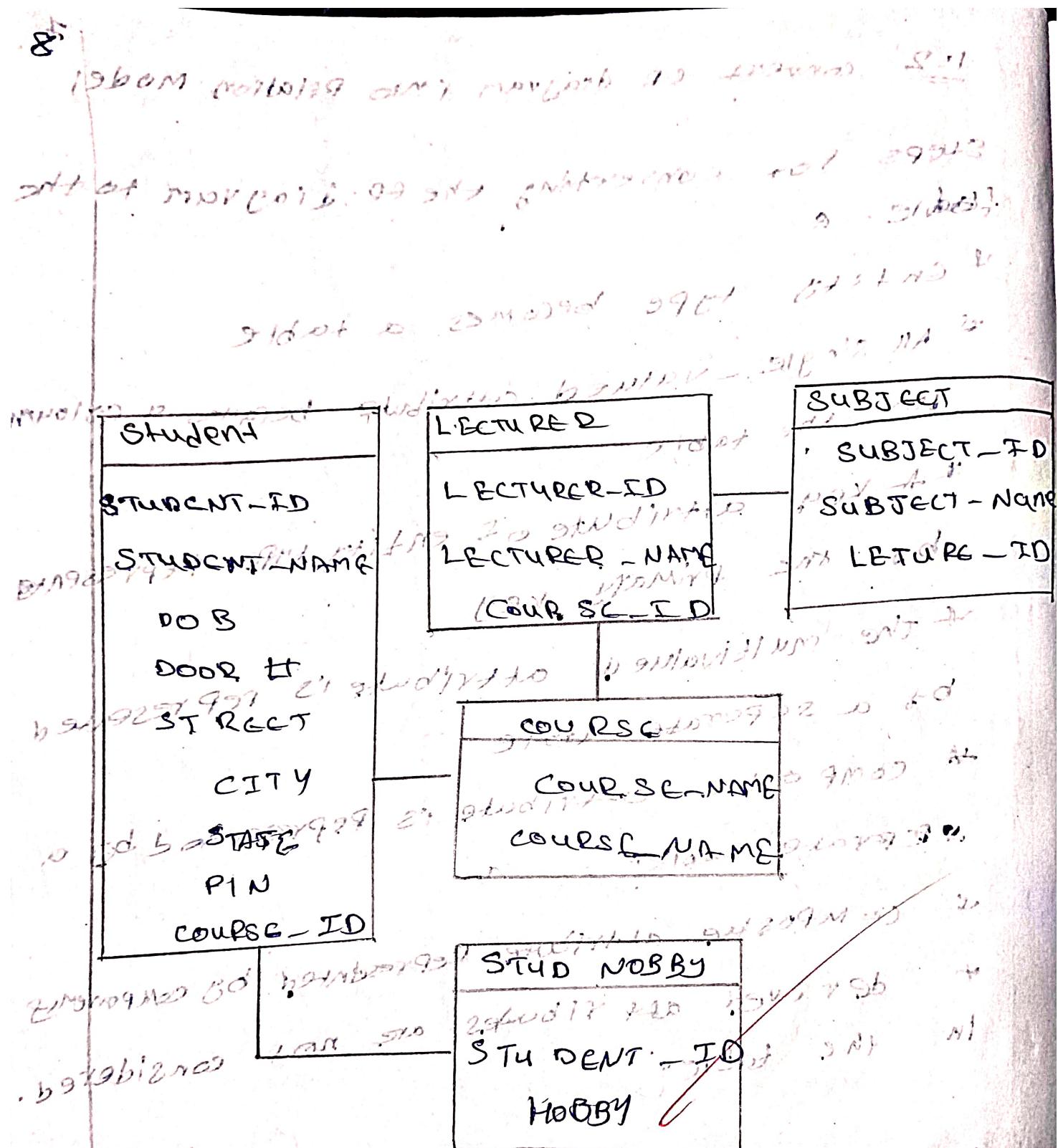




1.2 convert ER diagram into Relation Model

STEPS FOR CONVERTING THE ER DIAGRAM TO THE TABLES

- * Entity type becomes a table
- * All single-valued attribute becomes a column for the table
- * A key attribute of entity type is represented by the primary key
- * The multivalued attribute is represented by a separate table
- * Composite attribute is represented by components
- * Derived attributes are not considered in the table.



VEL TECH - CSE	
EX NO.	MARKS
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
CORD (5)	5
GRAND TOTAL	25

Result:- Thus the converted diagram into relation model has been successfully created