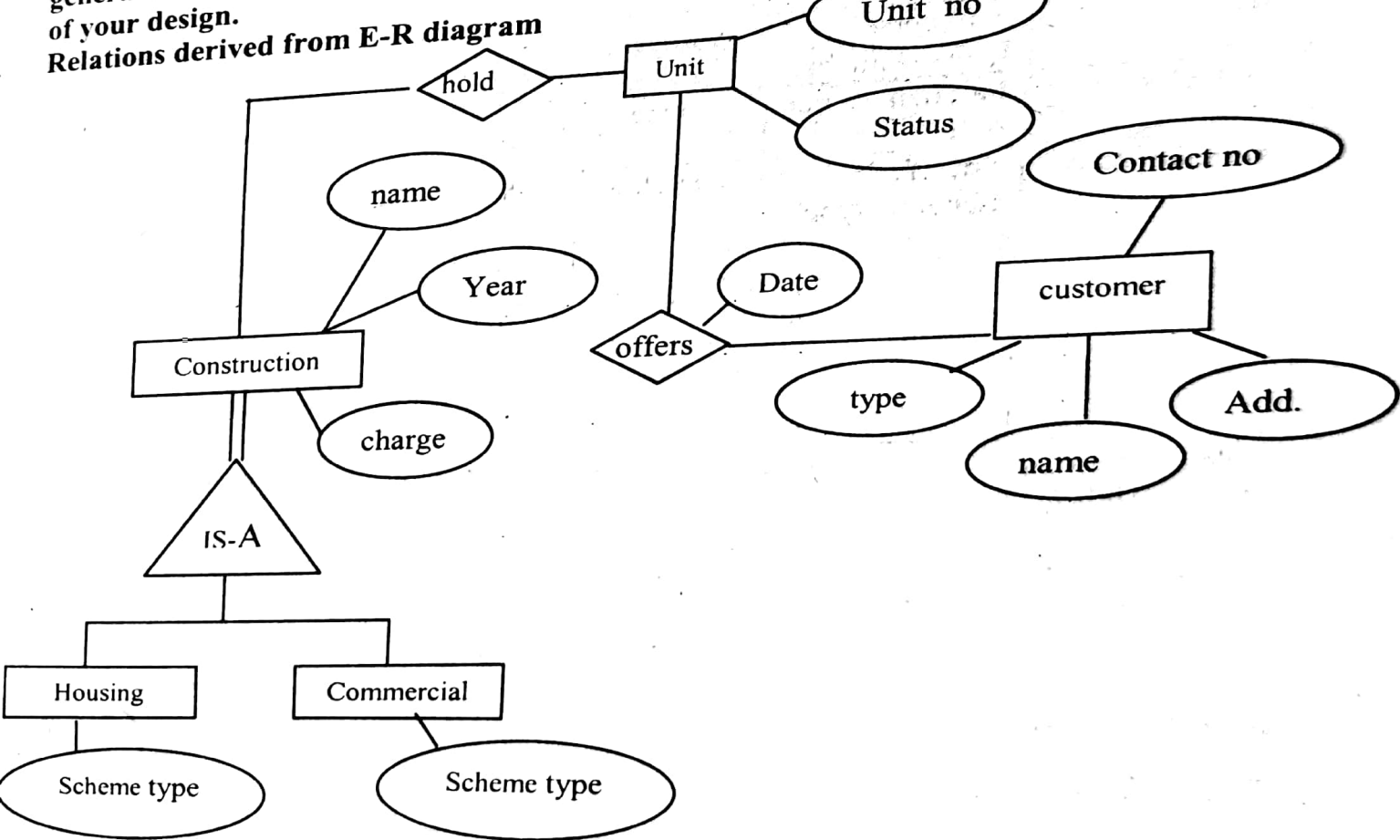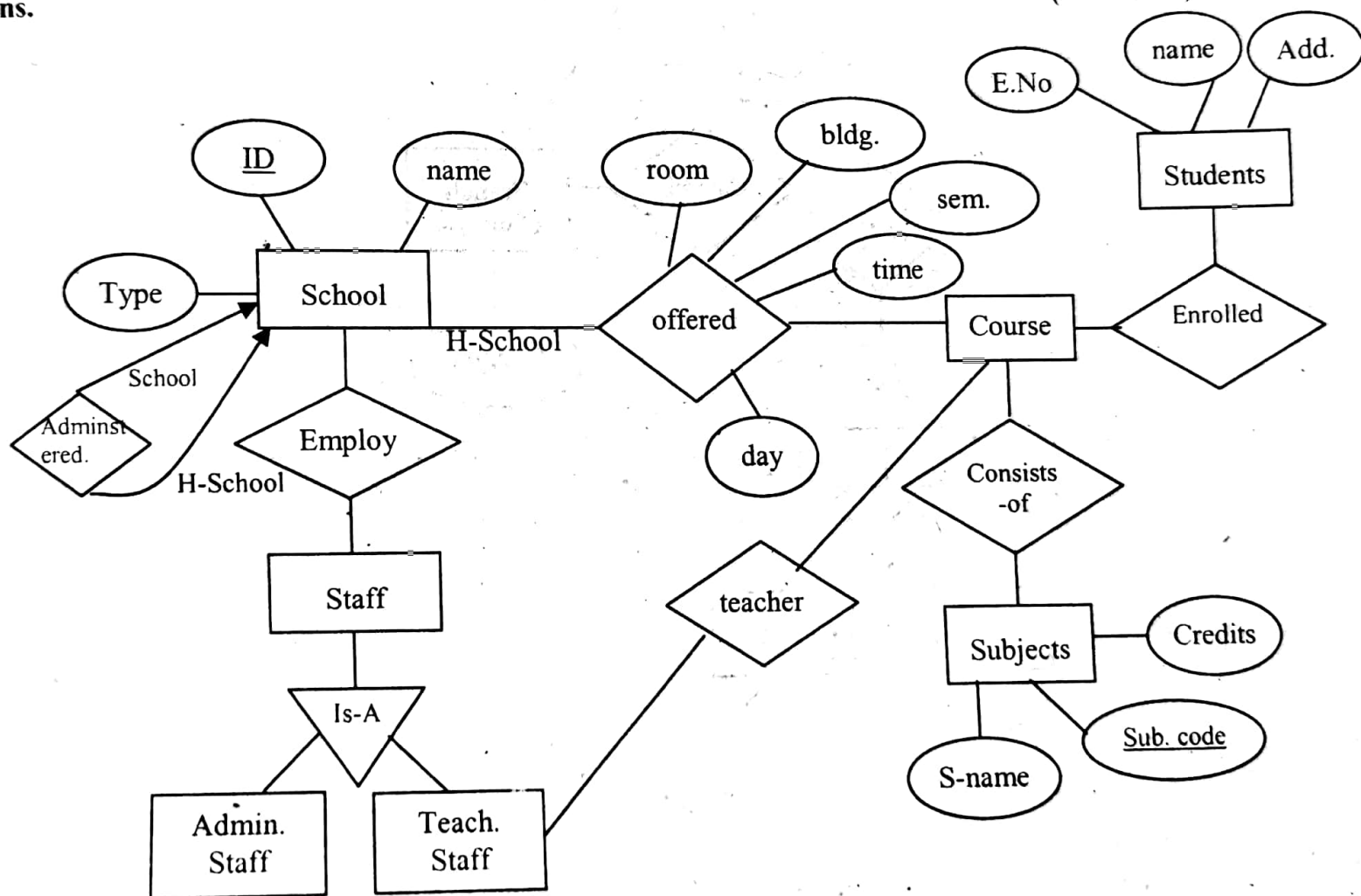A construction company has many branches spread all over the country. The company has two types of constructions to offer : Housing and Commercial, A housing company provides low income housing, medium style housing and high-end housing schemes, while on the commercial side it offers Multiplexes and shopping zones. The customers of the company may be individuals or corporate clients. Draw the E – R diagram for the company showing generalization or specialization hierarchies and aggregations, if any. Also create 3NF tables of your design.

(June-2004)

Relations derived from E-R diagram

Construction (

Q. 3 A university has many academic unit named schools. Each school is administered by a Head of School. The school has administrative and teaching staff. A school offers many courses. A course consists of many subjects A subject is taught to students who have registered for a subject in a class room by a teacher. **(Dec.-2001)**

Ans.

Entity sets:

Already Discussed Entity sets : ACCOUNT, CUSTOMER.
ATM : Strong Entity set for Automatic Teller Matchine.
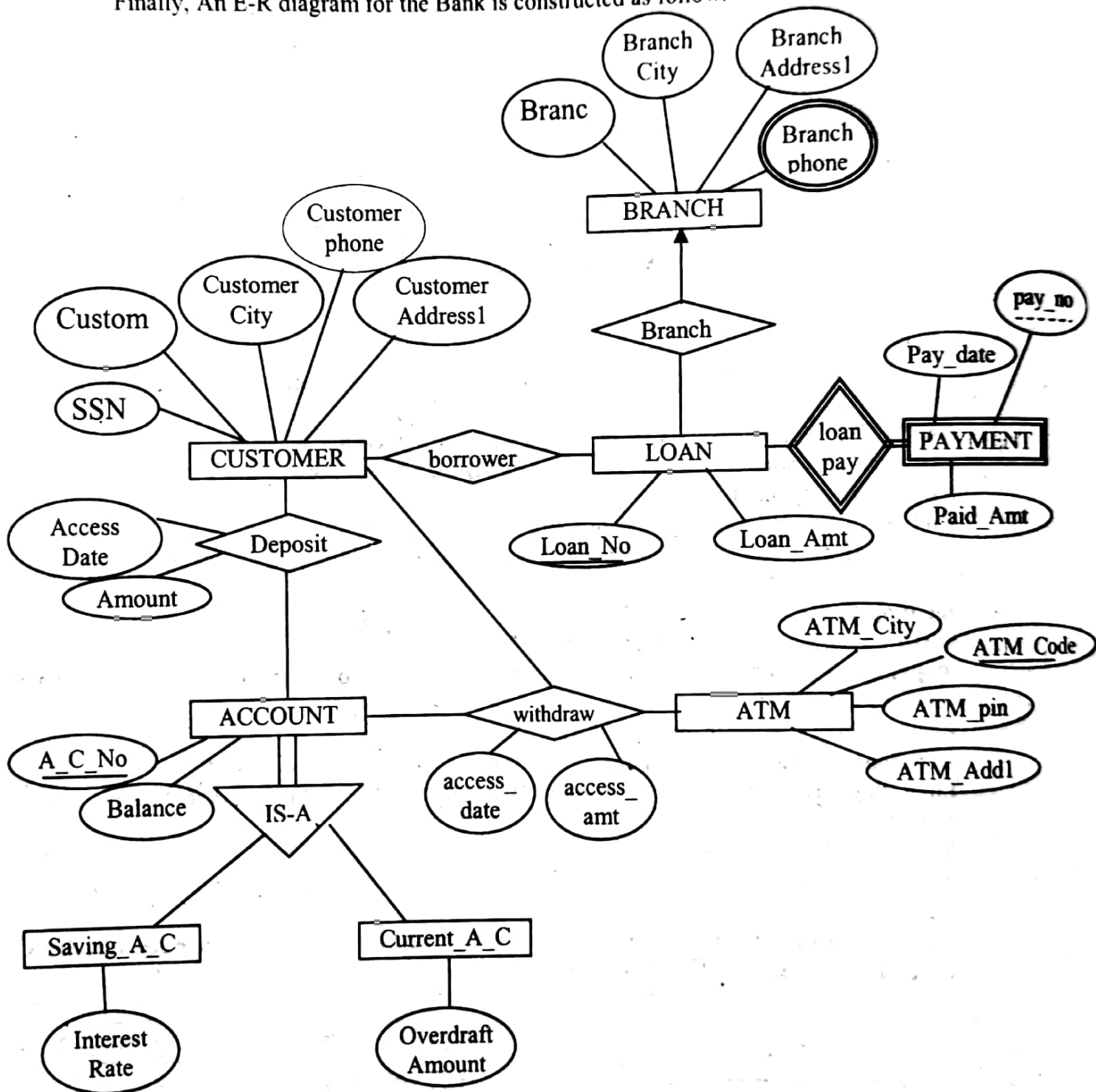**Attributes :** ATM_Code, (key Attribute)
         ATM_Address1, ATM_City, ATM_Pin.
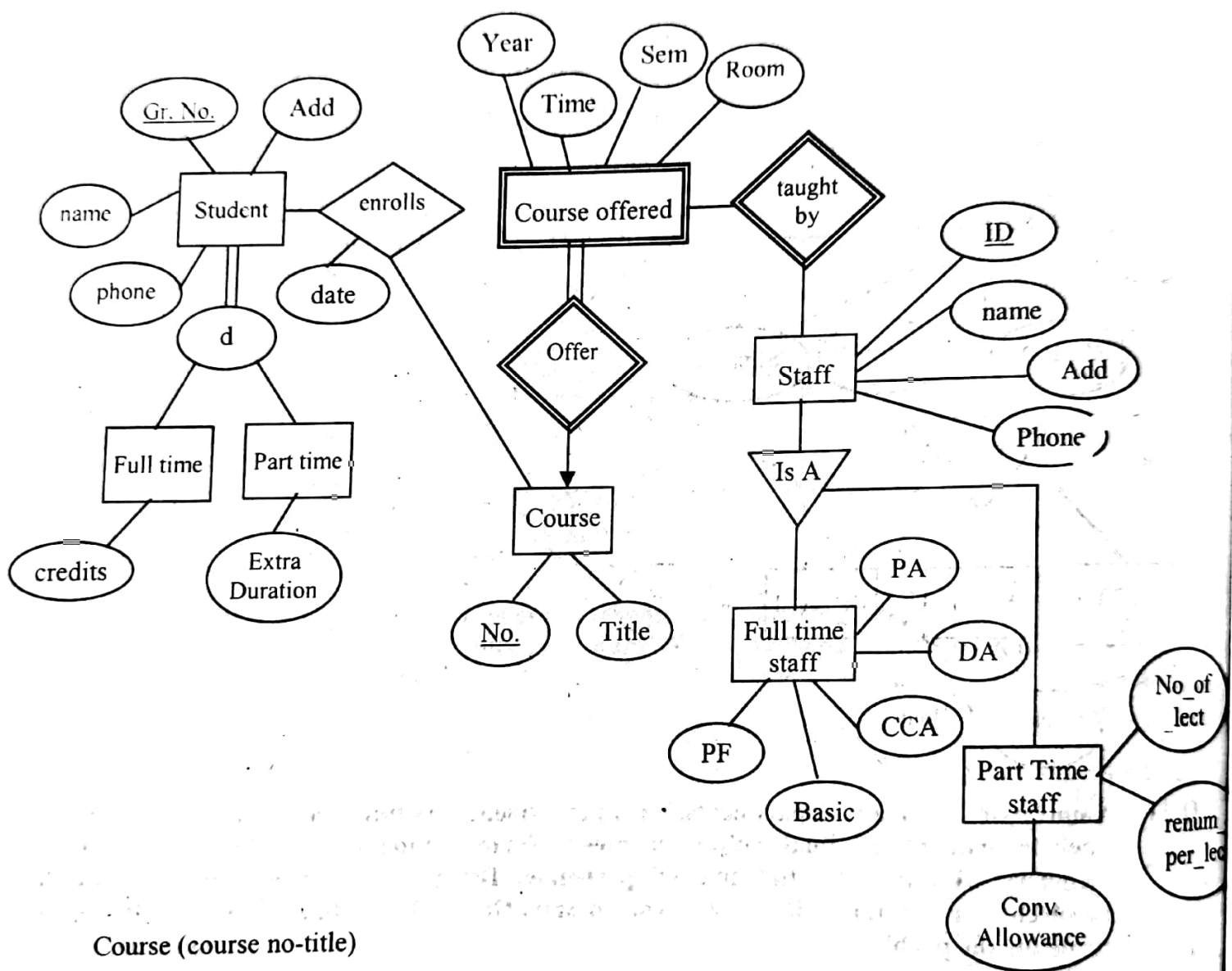**Relationship set:**
withdraw : Between entity sets Customer , Account , and ATM.
Attributes : access_date, access_amt.
Finally, An E-R diagram for the Bank is constructed as follow:

Translation of above E-R Model to Relational Database in 3NF:

Course (course no-title)

Course-off (Year, Time, Sem, room, ID, Course-no)

Enroll (Gr-no, course-no, date)

Staff (ID, name, add, phone, basic)

Full time-Staff (Basic, ID, PA, DA, PF, CCA, Working-year)

Part Time-Staff (ID, conveyance-allowance, Rem-per-lac, no-of-lects)

Full time – student (Gr-no, name, phone, address, credit)

Part-time – student (Gr-no, extra-pur, name, phone, address)