Question 01

a)

i. Hardware — input devices - mouse, keyboard
                  processing devices - cpu, server
                  output devices - monitor
                  storage devices — RAM, hard disk
                  processing devices - mouse, keyboard

Software — instractions of the system
              System Software.
              library software.

stored data- student data
               books data
               barrowing and return data.

personel- users of the system
               librarian

procedures — membership procedures
               payment procedures
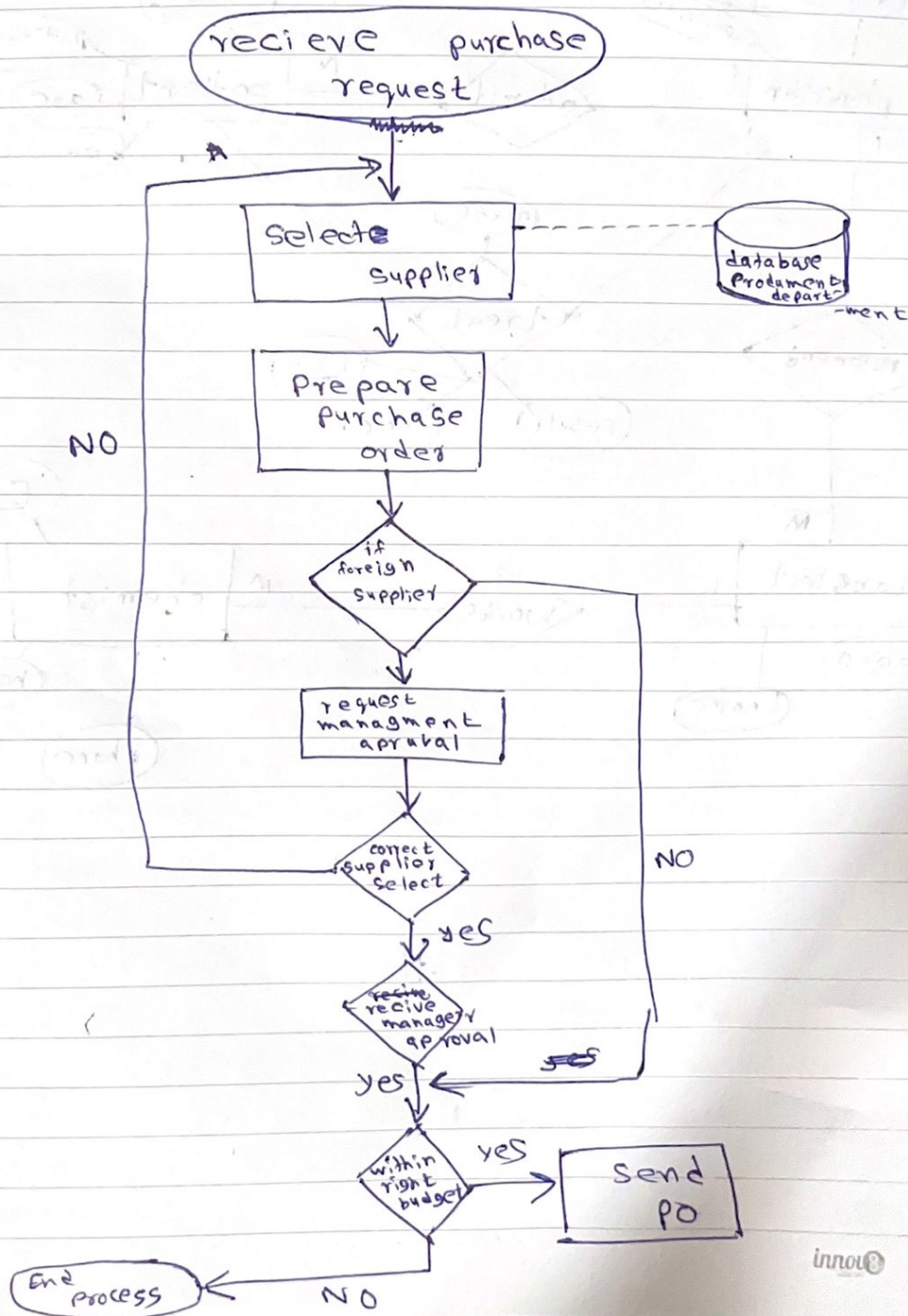   barrow and return procedures

ii. direct users- librarian
                 library assistant

indirect users- student
                 acadamic staff
                 hon academic staff

iii. Better information

increase productivity

improved Service

compitative advantage.
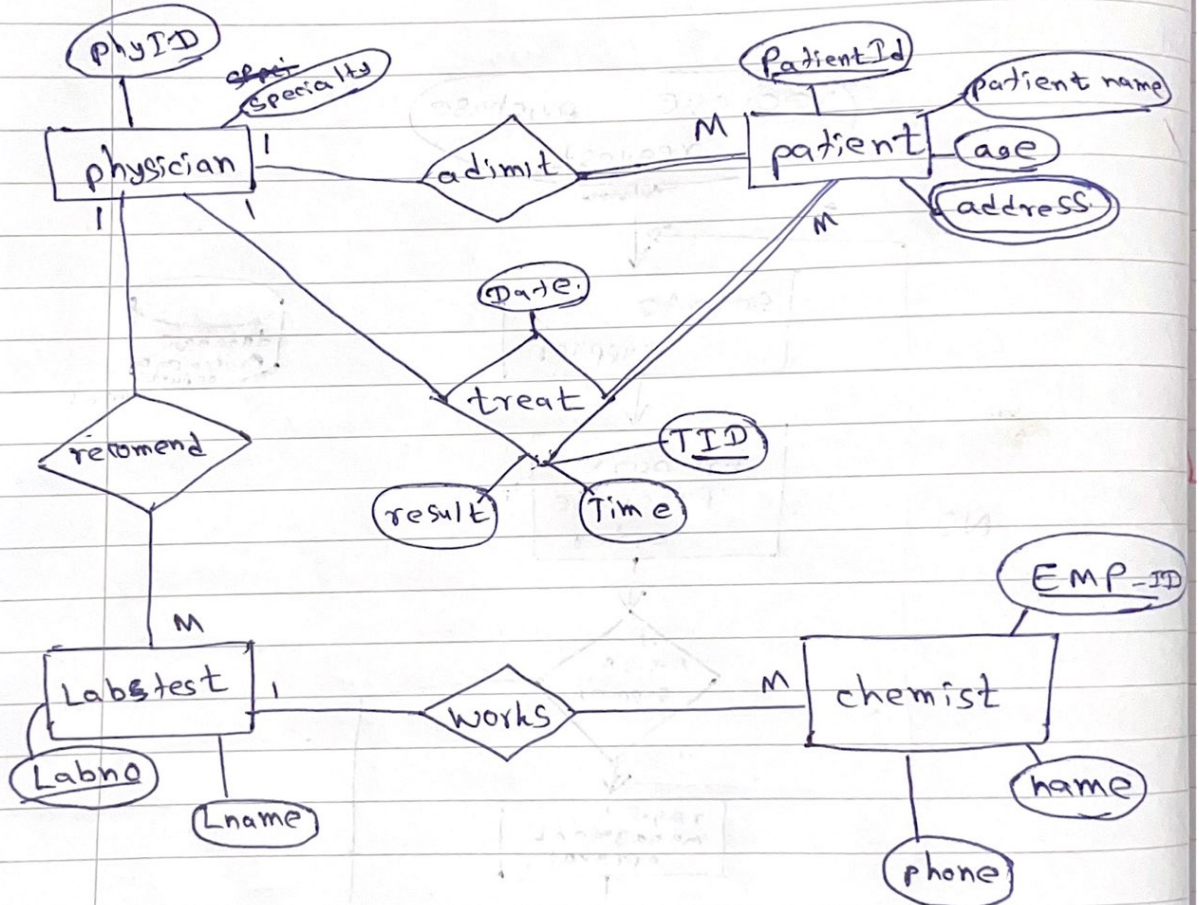
b) i. office Automation Systems

ii.

Date: ...../...../............

Question 02

entities — physician
           patient
           treat
           lebtest
           chemist

ER Diagram:

- PhyID — physician (Specialty), relates via "adimit" (1 : M) to patient (PatientId, patient name, age, address)
- physician — "recomend" (M) — Lab test (Labno, Lname)
- treat relationship with attributes Date, TID, result, Time between physician and patient (M)
- Lab test — "works" (1 : M) — chemist (EMP_ID, name, phone)

Question 03

Student (SID , FName , LName, StudentGrade)

telephone (SID, Tel_No)

Team (~~Tz~~ Tname , class, SID)

labsection (~~to~~ class , LabAssistant , Drag Exp week & year)

DragExpRun (RunNumber, Time, InitPositio , Distance, class, Tname)

Member of (SID, Tname, class)

Question 4

a) CREATE ~~Custome~~ TABLE customer
    (
              ~~#~~ cid int,
              cname string,
              ~~3~~address string,
              city string,
              state string,
              constraint pk_cus primary key (cid).
              ~~E~~
    );

b) INSERT INTO customer
    VALES
    (100, 'Amai', 'kadawatha', 'colombo', 'western');

c) SELECT state, count (cid) as 'number of emp'
    FROM customer
    ~~WHERE~~
    GROUP BY state, ~~col~~

d) SELECT P.Pname, ~~sh. amount~~ sum(sh.amount), P.Pid
    FROM Product P, ShipmentProduct SP
    ~~GROUP BY~~ WHERE P.Pid = Sho Pid.
    GROUP BY P.Pname, ~~Sum (sh.amount)~~
    HAVING Sum (sh.amount) > 10000

e) SELECT ~~Product~~ pid, Pname, Price.
    FROM Product
    WHERE price > SELECT price
                  FROM Product
                  WHERE ~~price~~ pid = '200'