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Reg. No. :- 18BIT0272

Course :- Database Management Systems

Code :- ITE1003

Faculty :- Prof. BIMAL KUMAR RAY

DIGITAL ASSIGNMENT

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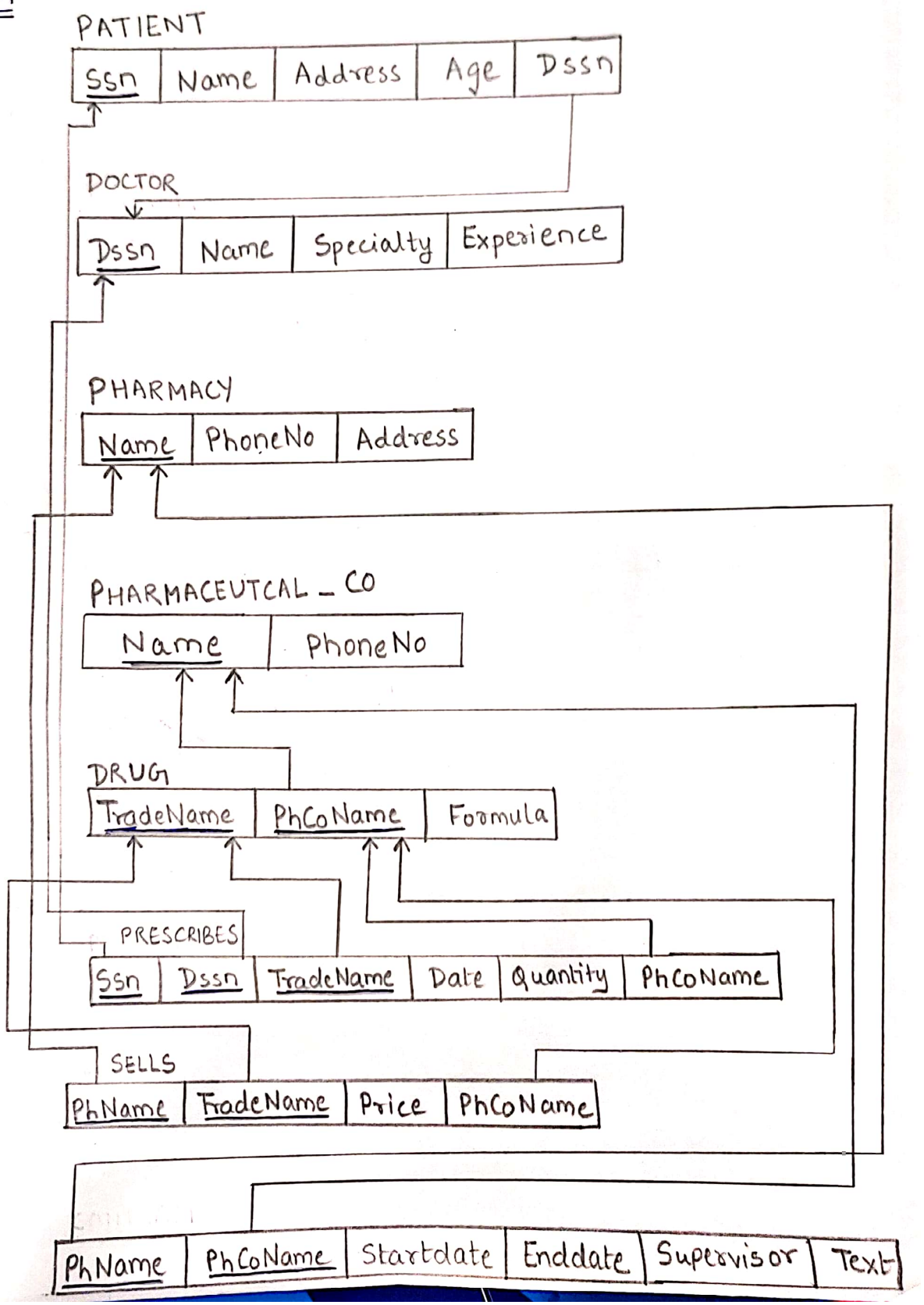
Q.1



Q.2

(a) $\pi_{pname}(\sigma_{price<20}(PARTS))$

(b) $\pi_{pname, city}(\sigma_{orders.ono = odetails.ono} \wedge \sigma_{odetails.pno = parts.pno}$

$\wedge \sigma_{employees.zip = zip\_codes.zip} \wedge \sigma_{employees.eno = order.eno}$

$\wedge \sigma_{price>50}(orders \times details \times parts \times employees \times zip\_codes))$

(c) $\pi_{c1.cname, c2.cname}(\sigma_{c1.zip = c2.zip}(\rho_{c1}(customers) \times \rho_{c2}(customers)))$

(d) $\pi_{e.cname}(\rho_e(customers \bowtie_{d.cno = customers.cno} \rho_d(parts \bowtie_{c.pno = parts.pno}$

$\rho_c(odetails \bowtie_{b.ono = odetails.ono} \rho_b(orders \bowtie_{d.eno = orders.eno}$

$\rho_a(employees \bowtie_{employees.zip = z.zip} \rho_z($

$\sigma_{city = "Wichita"}(zipcode)))))))$

(e) $\pi_{customers.cname}(\sigma_{customers.cno = order.cno} \wedge \sigma_{orders.ono = odetails.ono}$

$\wedge \sigma_{odetails.pno = parts.pno} \wedge \sigma_{parts.price<20}($

$customers \times orders \times odetails \times parts))$

(f) $\pi_{customers.cname}(\sigma_{a.ono \text{ is NULL}} \rho_a(customers \bowtie_{customers.cno = orders.cno}$

$(orders)))$

(g) $\pi_{cname}(\sigma_{count(ono) = 2}(_{cno}\gamma_{count(ono)}(customers \bowtie orders)))$