**Sheet#10**

1. Develop a context diagram and level-0 diagram for the hospital pharmacy system :

The pharmacy at Mercy Hospital fills medical prescriptions for all Patients and distributes these medications to the nurse station responsible for the patient's care. Medical prescriptions are written by doctors ad sent to the pharmacy. A pharmacy technician reviews the prescriptions and send them the appropriate pharmacy station. Prescriptions for drugs that must be formulated are sent to lab station, prescription for off-the-shelf are sent to shelving station and prescription for narcotics are sent to secure station. at each station a pharmacist reviews the order , checks the Patient file to determine the appropriateness of the prescriptions , and fills the order if the dosage is at safe level and it will not negativity interact with the other medications or allergic indicated in the Patient's file . If the pharmacist does not fill the order, the prescribing doctor is contacted to discuss the situation. In this case the order may ultimately be filled or the doctor may write other prescriptions depending on the outcome of the discussion. Once filled, a prescription label is generated listing the Patient's name, the drug type and dosage, an expiration date, and any special instructions. The label is placed on the drug container and the order is sent to the appropriate nurse station. The patients admission number, the drug type and amount dispends and the cost of the prescription are then sent to the billing department.

Patient Number

and Drug Type,

Amount & Cost

Prescription

Drug Label Info

Unfilled Order Info

Doctor

Store

Manager

0

Hospital

Pharmacy

System

Unfilled Order Info

Response

Patient Info

Drug Label Info

Drug Label Info

Order Fill Info

Prescription

Pharmacy

Tech Review

Order Info

Unfilled Order Info

Response

Unfilled Order Info

D1

Patient File

Billing

Dept

Doctor

Nurses

Station

4

Generate

Label

3

Fill

Order

1

Review &

Send Prescription to Station

2

Review

Prescription Order by Station

Prescription

Patient Number

and Drug Type,

Amount & Cost

Prescription