

DFD Assignment

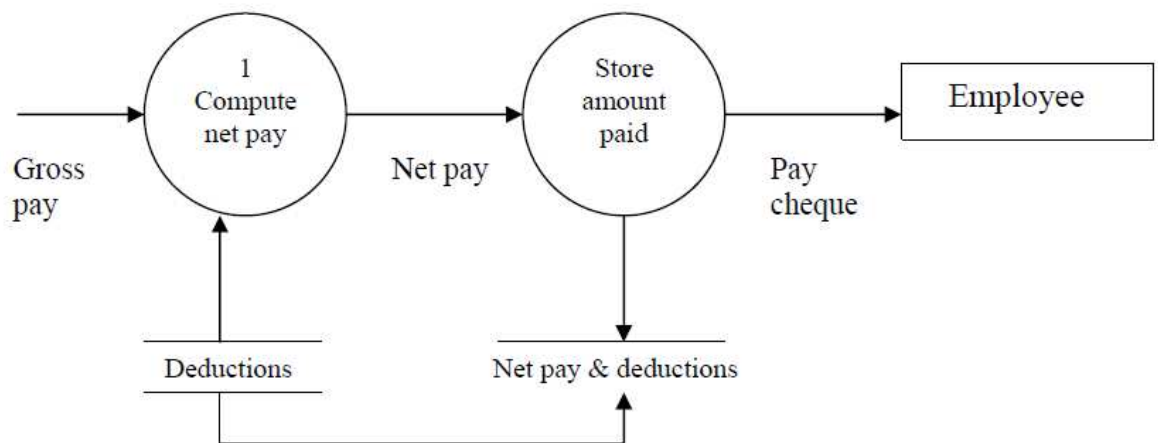
Submission Deadline : 23rd December 2014

1. Prepare physical and logical DFDs for the following processes:

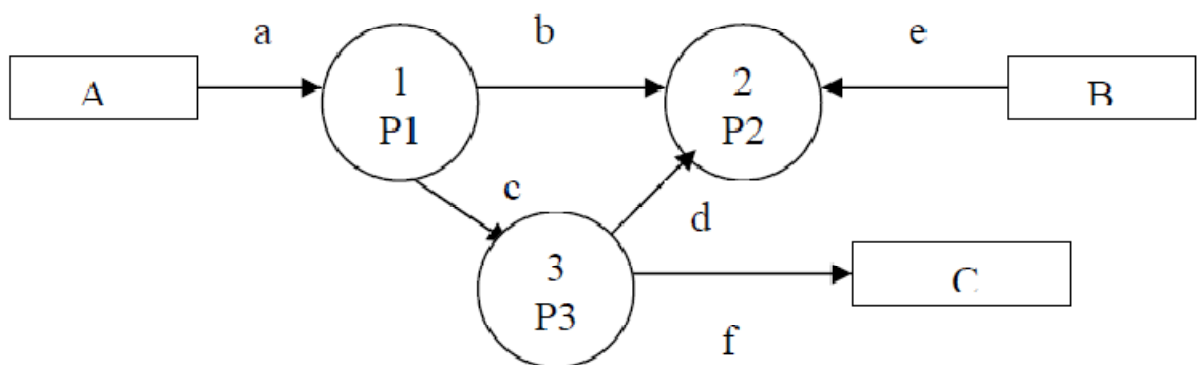
- Getting an item from the store.
- Returning a book to the library.

2. What are the mistakes in each of the DFDs of Fig. 2(a)–2(c)?

A.

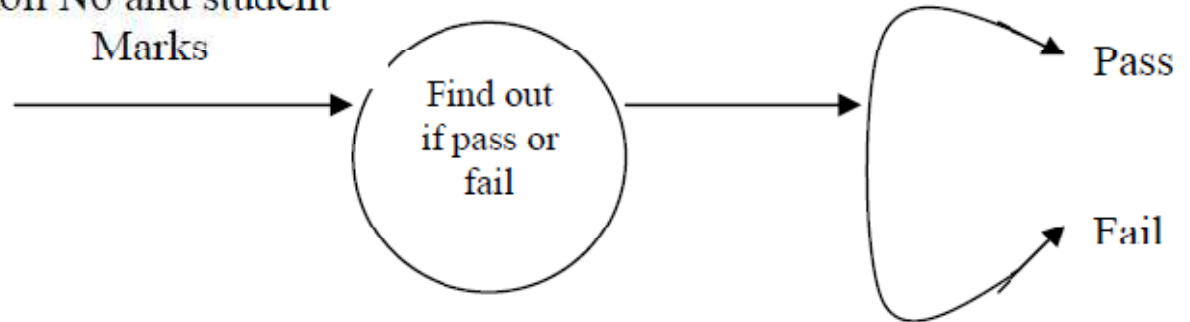


B.



c.

Roll No and student
Marks



3.

Develop a context diagram and level-0 diagram for the hospital pharmacy system described in the following narrative. If you discover that the narrative is incomplete, make up reasonable explanations to complete the story. Supply these extra explanations along with the diagrams.

The pharmacy at Mercy Hospital fills medical prescriptions for all hospital patients and distributes these medications to the nurse stations responsible for the patients' care. Prescriptions are written by doctors and sent to the pharmacy. A pharmacy technician reviews each prescription and sends it to the appropriate pharmacy station. Prescriptions for drugs that must be formulated (made on-site) are sent to the lab station, prescriptions for off-the-shelf drugs are sent to the shelving station, and prescriptions for narcotics are sent to the secure station. At each station, a pharmacist reviews the order, checks the patient's file to determine the appropriateness of the prescription, and fills the order if the dosage is at a safe level and it will not negatively interact with the other medications or allergies 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 another prescription 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 patient's admission number, the drug type and amount dispensed, and the cost of the prescription are then sent to

4.

Develop a context diagram and a level-0 diagram for the contracting system described in the following narrative. If you discover that the narrative is incomplete, make up reasonable explanations to complete the story. Supply these extra explanations along with the diagrams.

Government Solutions Company (GSC) sells computer equipment to federal government agencies. Whenever a federal agency needs to purchase equipment from GSC, it issues a purchase order against a standing contract previously negotiated with the company. GSC holds several standing contracts with various federal agencies. When a purchase order is received by GSC's contracting officer, the contract number referenced on the purchase order is entered into the contract database. Using information from the database, the contracting officer reviews the terms and conditions of the contract and determines whether the purchase order is valid. The purchase order is valid if the contract has not expired, the type of equipment ordered is listed on the original contract, and the total cost of the equipment does not exceed a predetermined limit. If the purchase order is not valid, the contracting officer sends the purchase order back to the requesting agency with a letter stating why the purchase order cannot be filled, and a copy of the letter is filed. If the purchase order is valid, the contracting officer enters the purchase order number into the contract database and flags the order as outstanding. The purchase order is then sent to the order fulfillment department. Here the inventory is checked for each item ordered. If any items are not in stock, the order fulfillment department creates a report listing the items not in stock and attaches it to the purchase order. All purchase orders are forwarded to the warehouse where the items in stock are pulled from the shelves and shipped to the customer. The warehouse then attaches to the purchase order a copy of the shipping bill listing the items shipped and sends it to the contracting officer. If all items were shipped, the contracting officer closes the outstanding purchase order record in the database. The purchase order, shipping bill, and exception report (if attached) are then filed in the contracts office.