

# National University of Computer and Emerging Sciences, Lahore Campus



**Course:** Software Engineering  
**Program:** BS (Computer Science)  
**Duration:** 20 Minutes  
**Quiz Date:** 21-Feb-24  
**Section:** 6D

**Course Code:** CS-3009  
**Semester:** Spring 2024  
**Total Marks:** 15  
**Roll No.**  
**Name:**

## Question 1:

(15 marks)

Your team is developing an internet based electronic items ordering system. The system shall allow a customer to order the electronic items online. An order is a set of one or more electronic items selected from the inventory. An order when processed can be picked up at the warehouse or delivered to the customer location at a specified time and date. Knowing beforehand the items that customers' demand can help improve the efficiency of the staff. To allow customers order online the system shall display a list of items (retrieved from the inventory) to the customer, receive order from the customer, record order details including delivery address, delivery date, delivery time, and payment amount which is due. Once the order is recorded an order id is sent to the customer and the customers will be able to use the order id to inquire/modify the order (i.e. know order status, modify, or cancel the order). After recording of the order, the system shall process the delivery of the placed order by selecting a delivery person from the riders' database. Once the order is delivered to the customer the system shall generate order completion notification (containing an order summary) for the customer. The system shall receive payments through credit card; the credit card details shall be provided by the customer to the system when placing an order. The provided details are sent to the payment processing module of the system that shall contact the banking system for the processing of the payment. The customers paying through the credit card receive a digital receipt from the payment processing module. The system shall allow the staff to manage its inventory (adding, modifying, deleting electronic item records etc.). Each customer will be shown the make, model, and price of the items listed. This information is added to the inventory when an item's record is added to the inventory.

### To do:

Develop a Level-1 DFD for the requirements given above. The diagram must be complete in terms of notation and mentioned requirements.

