

## Assignment 10 Solutions

### Question 1:

- 1) Item(itemNo, itemDesc)  
Order(orderNo, custNo, ItemNo, LineNo, qtyOrdered, qtyOutstanding, plantNo, ReorderPoint, qtyOnHand, orderDate)  
CustInfo(custNo, custBal, custDiscount, shipAddr)
- 2) Item(itemNo, itemDesc)  
Customer(custNo, custBal, custDiscount, shipAddr)  
OrderLine(LineNo, ItemNo, qtyOutstanding, qtyOnHand, plantNo)  
Order(orderNo, lineNo, orderDate, qtyOrdered)

### Question 2:

- 1) (voyageID, shipName, date, port)  
(voyageID, shipName, date)  
(voyageID, shipName, port)
- 2) Ship(shipName, shipType)  
Shipping(shipName, voyageID, date, port, cargo)
- 3) Ship(shipName, shipType)  
Cargo(shipName, voyageID, date, cargo)  
Shipping(shipName, voyageID, date, port)

### Question 3:

#### 1NF:

It is in the 1NF

PK is (partNumber, supplier)

Functional Dependencies:

partNumber, supplier -> description, supplierAddress, price

partNumber -> description

supplier -> supplierAddress

partNumber, supplier, description -> supplierAddress, price  
partNumber, supplier, description, supplierAddress -> price  
partNumber, supplier, supplierAddress -> description, price

2NF:

Part(partNumber, description)

Supply(partNumber, supplier, supplierAddress, price)

3NF:

Part(partNumber, description)

Supplier(supplier, supplierAddress)

Supply(partNumber, supplier, price)