Business Economics

Chapter 2: Demand Analysis

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LEARNING OBJECTIVES

- Explain the Concept of Demand
- Discuss different types of demand
- Identify various determinants of demand
- Explain the law of demand
- Discuss the shift and movement along the demand curve

Meaning of Demand

- Demand can be defined as a quantity of a product an individual is **willing to purchase** at a specific point of time, backed up by Purchasing power.

- Demand consists of two factors

1. **Willingness to purchase the commodity**
2. **Ability to pay for the price of the commodity**

- A statement referring to demand for a commodity or service must include the following three key factors:
  - ❖ The quantity to be purchased
  - ❖ The price at which the commodity is to be purchased
  - ❖ The time period when the commodity is to be purchased

1. Types of Demand

Demand is classified based on various factors, such as the number of consumers, the nature of products, utility of products, and interdependence of different demands.

The demand for a particular product can be different under different situations. **Different types of demand** are as follows:

- Price Demand
- Income Demand
- Cross Demand
- Individual and Market Demand
- Joint Demand
- Composite Demand
- Direct and Derived Demand

2. Types of Demand

Price Demand

- It is a demand for different quantities of a commodity or service that consumers intend to purchase at a given price and time period assuming other factors, such as prices of the related goods, level of income of consumers, and consumer preferences, remain unchanged.
- It can be mathematically expressed as follows:

  DA = f (PA) where,

  DA = Demand for commodity A

  f = Function

  PA =Price of commodity A

3. Types of Demand

Income Demand

- It is a demand for different quantities of a commodity or service that consumers intend to purchase at different levels of income assuming other factors remain the same.
- The relationship between demand and income can be mathematically expressed as follows:

DA = f (Y X), where, Suppose Consumer is X

DA = Demand for commodity A

f = Function

Y - X = Income of Person X

4. Types of Demand

Cross Demand

- It refers to the demand for different quantities of a commodity or service whose demand depends not only on its own price but also the price of other related commodities or services.
- Mathematically, this can be expressed as follows:

$DA = f(PB)$, where,

DA = Demand for commodity A

f = Function

PB = Price of commodity B

5. Types of Demand

Individual demand and Market demand

- This is the Classification of Demand based on the number of consumers in the market. Individual demand refers to the quantity of a commodity or service demanded by an individual consumer at a given price at a given time period.
- The individual demand of a product is influenced by the price of a product, income of customers, and their tastes and preferences.
- On the other hand, Market Demand is the aggregate of individual demands of all the consumers of a product over a period of time at a specific price while other factors are constant.

6. Types of Demand

Joint demand

- It is the quantity demanded for two or more commodities or services that are used jointly and are, thus demanded together.
- For example, car and petrol, bread and butter, pen and refill, etc. are commodities that are used jointly and are demanded together.
- The demand for such commodities changes proportionately.
- For example, rise in the demand for cars results in a proportionate rise in the demand for petrol. However, in the case of joint demand, rise in the price of one commodity results in the fall of demand for the other commodity.

7. Types of Demand

Composite demand

- It is the demand for commodities or services that have multiple uses. For example, the demand for Steel is a result of its use for various purposes like making utensils, car bodies, pipes, cans, etc. Same for Electricity.
- In the case of a commodity or service having composite demand, a change in price results in a large change in the demand.
- This is because the demand for the commodity or service would change across its various usages.

8. Types of Demand

Direct and derived demand

- Direct demand is the demand for commodities or services meant for Final* consumption.
- This demand arises out of the natural desire of an individual to consume a particular product. For example, the demand for food, shelter, clothes, and vehicles is direct demand as it arises out of the biological, physical, and other personal needs of consumers.
- On the other hand, derived demand refers to the demand for a product that arises due to the demand for other products. For example, the demand for cotton to produce cotton fabrics, or Silk for Silk Fabrics, TV & Mechanic, Vehicle & Garage is kind of derived demand.

Law Of Demand

The Amount Of Demand rises with Fall in Market Prices & Level of Demand contracts (diminishes) with expansion in Price."

- Dr. Alfred Marshal

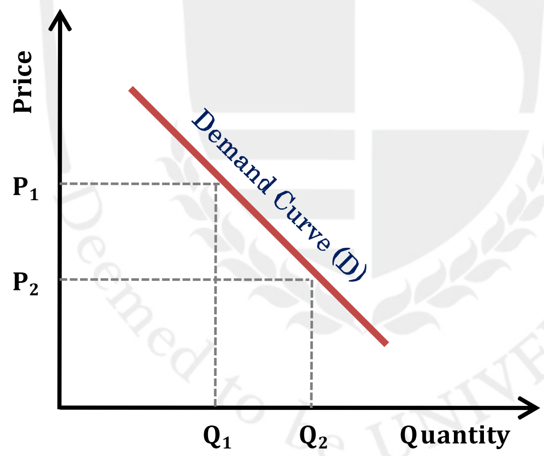
Some of the Assumptions of the law are :

- The income of the consumer remains constant
- Consumer tastes and preferences remains constant
- Price of related goods remains unchanged
- Population size remains constant
- Consumer expectations do not change for certain period of time.
- Income of the consumers remains at rational Equilibrium level.

Law of Demand

Law of Demand states that, all other factors being held constant, as the price of good increases, the quantity demanded will fall.

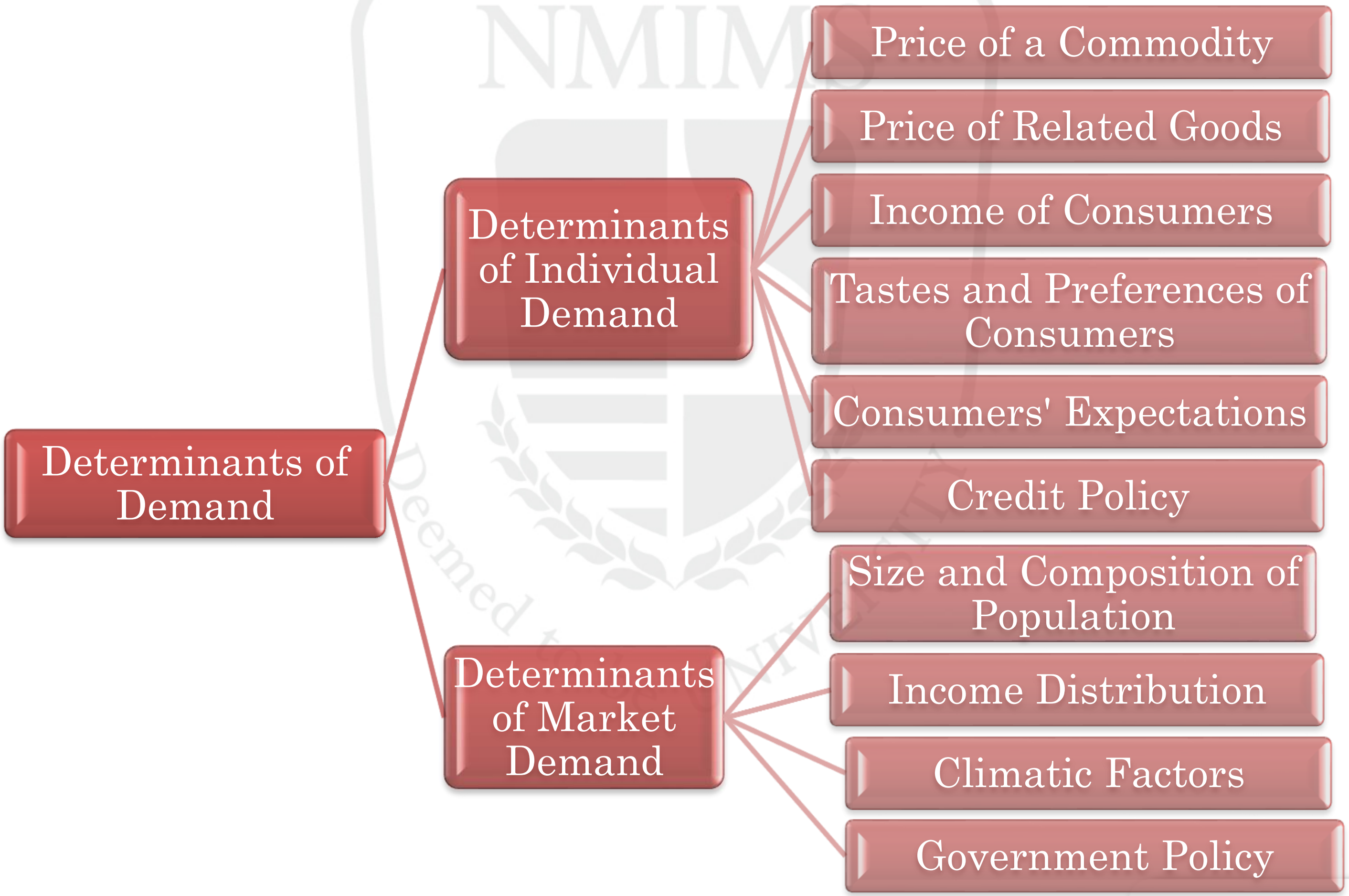
Demand is a function of price
D= f (P)



PRICE	QUANTITY
1	50
2	40
3	30
4	20
5	10

Determinants of Demand

Determinants of demand are the factors that influence the decision of consumers to purchase a commodity or service.



Determinants of Market Demand

- Market Demand :It is the sum total of all household (individual) demands.
- Therefore ,all factors that affects the individual demand also affect the market demand as well

Particular Factors influencing market demands

- Size and composition of population
- Income distribution
- Climatic Factors
- Government Policies

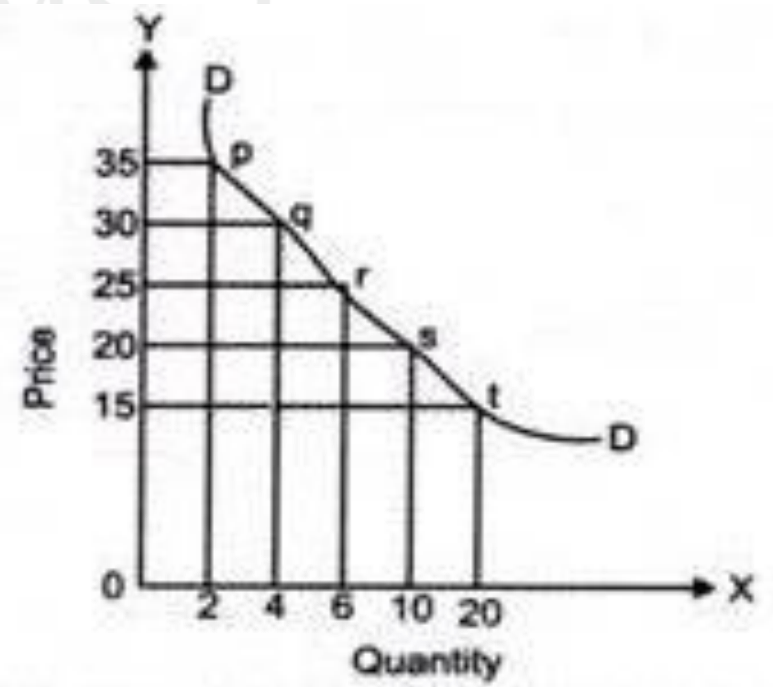
Demand Schedule

- A demand schedule is a tabular representation of different quantities of commodities that consumers are willing to purchase at specific price and time while other factors are constant. It can be classified into two categories, which are:
  - **Individual demand schedule:** It is a tabular representation of quantities of a commodity demanded by an Individual at a particular price and time, provided all other factors remain constant.
  - **Market demand schedule:** There is more than one consumer of a commodity in the market. Each consumer has his/her own individual demand schedule. If the quantities of all/many individual demand schedules are consolidated, it is called market demand schedule.

Individual Demand Schedule and Individual curve

Price of product X (per unit in Rs)	Quantity Demanded (per week in units)
15	20
20	10
25	6
30	4
35	2

Demand Schedule



Demand Curve for Product X

Individual Demand curve

Market Demand Schedule and Market Curve

Price of P (per unit in ₹)	Individual Demand (per day)				Market Demand (per day)
	Ram	Shyam	Sharad	Ghanshyam	
30	2	3	1	3	9
25	4	5	4	4	17
20	6	8	6	6	26
15	7	9	7	8	31

Market Demand Schedule

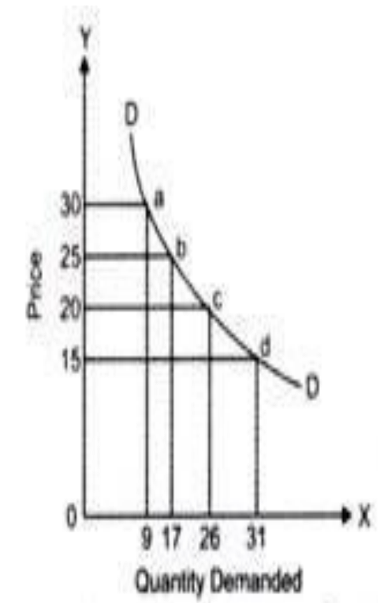


Figure-6: Market Demand Curve for Product P

Market Demand Curve

Lets Practice – Illustration 2 :

Individual demand and market demand – Determine Market Price

Milk price Rs/L	Buyer 1	Buyer 2	Buyer 3	Market Demand
32	5	10	0	
28	8	12	4	
24	12	15	7	
20	20	19	12	
16	30	25	20	
12	45	30	30	

Lets Practice – Solution

Individual demand and market demand

Milk price Rs/L	Buyer 1	Buyer 2	Buyer 3	Market Demand
32	5	10	0	=5+10+0 =15
28	8	12	4	=8+12+4 =24
24	12	15	7	=12+15+7=34
20	20	19	12	20+19+12
16	30	25	20	30+25+20
12	45	30	30	45+30+30

Why Demand Curve Slopes downwards

- **Law of Diminishing marginal utility-** As consumption of a commodity increases But…the *additional satisfaction* from *Extra Consumption* commodity falls.so consumer buys more units a commodity only at lower price.

- **Income Effect** – Increase in real income due to reduction in price of a commodity

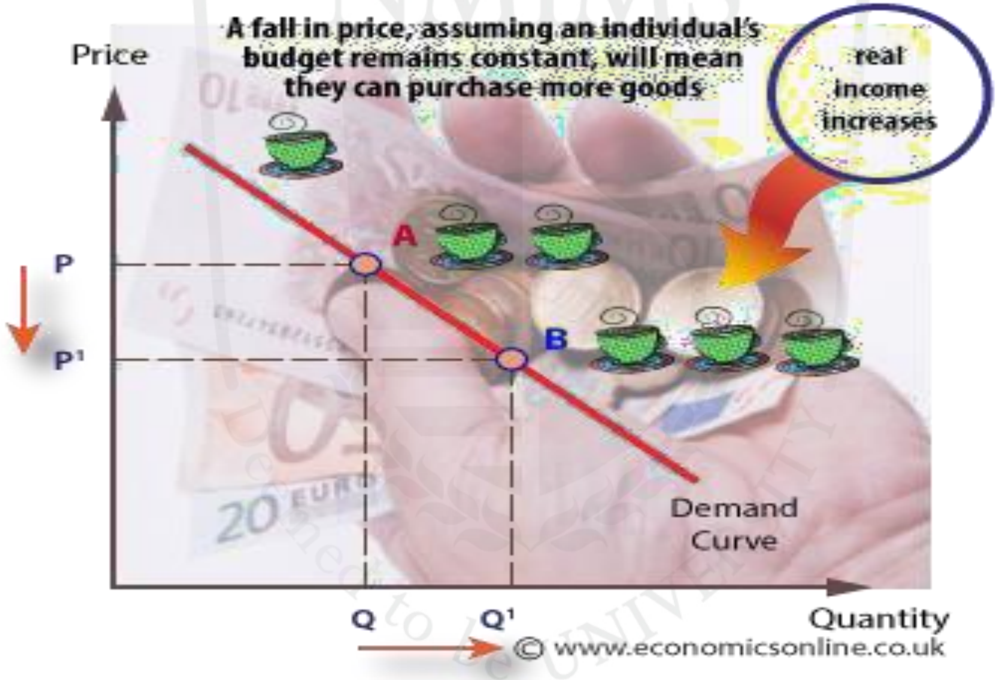
- **Substitution Effect** – Consumers shift to the substitute commodity if price of the commodity rises

- **Change in the number of consumers-** With fall in price, number of consumers buying that commodity rises.

- **Multiple use of a commodity** –At low price, commodity may be utilized for many purpose

Concept Building - Illustration

Concept Building – Income Effect- Illustration



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Examples

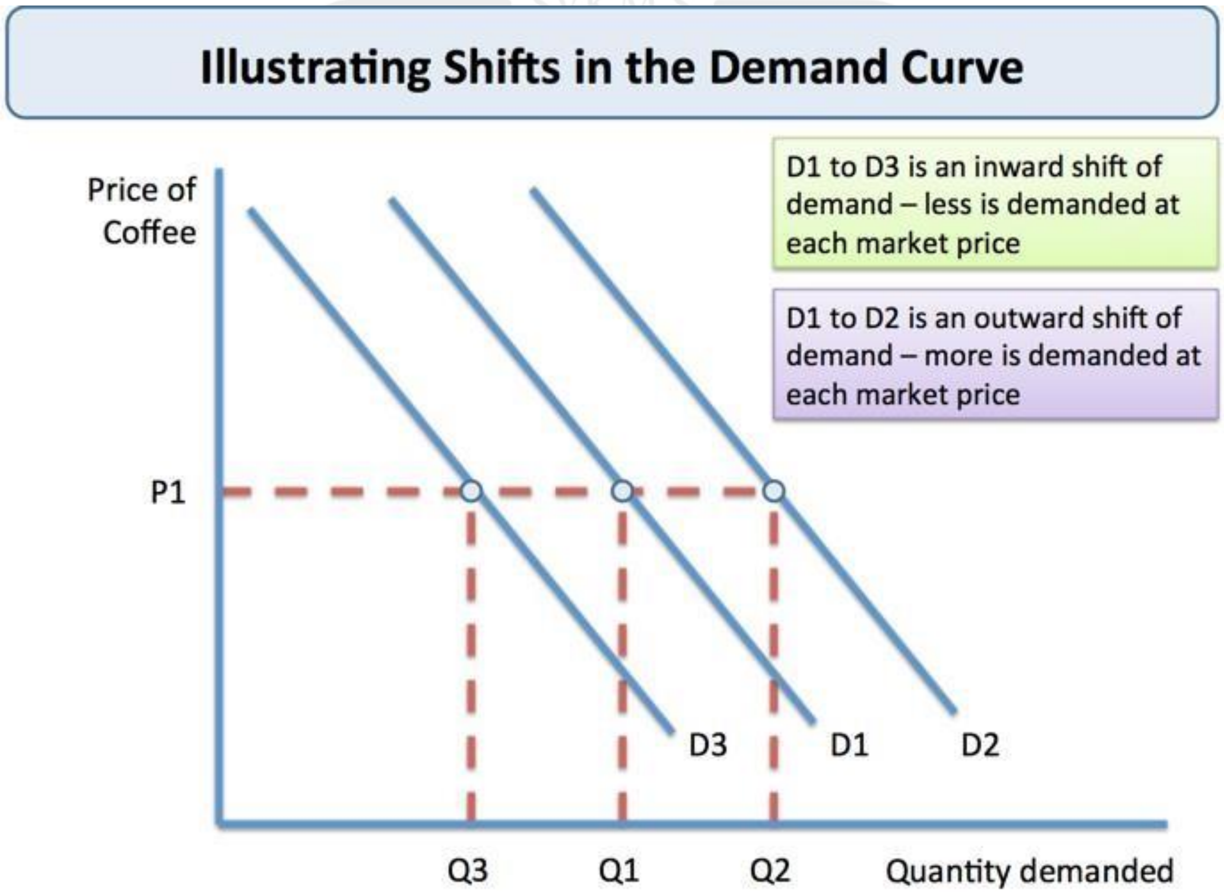

Substitute Goods
Colgate
Crest
Coca-Cola
pepsi
Potatoes
Sam's
Farm
Potatoes
Fred's
Farm
McDonald's
BURGER KING
Coffee
Tea
Substitute Goods
If Price
Rises
Demand
Goes Up
Vice-Versa
If Price
Drops
Demand
Goes Down

Exceptions to the law of demand

If is a condition where law of demand is not applicable. That is, with increase in price ,the demand for the commodity does not fall or even decrease in price, the particular demand may not increase.. So the INVERSE relationship is not followed.

- **Griffen Goods –** Sir Robert Giffen paradox for inferior goods (Income Demand)
- **Veblen Goods –** High quality goods – Status symbol – Luxury Row Houses, Cars by affluent consumers who place a premium on respective high end utilities.
- **Conspicuous Necessities** (snob goods) **–** In the modern society, certain goods like TV, mobile phone, fridge, have become a part of life, despite the fact that they are expensive.
- **Consumer's Ignorance** – Its referred as information regd. Product might not be observed and remains unknown or is forgotten by the consumer due to Brand Preference / or Heavy Advt. or any other reasons.
- **Future Expectations** – Whenever there are super Optimistic perception regd. Future or vice versa in case of Future fear of contingency / scarcity / or Uncertainty, the Law of Demand may not work in its original attire.

Shift and Movement along Demand Curve



Shift and Movement Along Demand Curve

Expansion and Contraction of Demand

- The change in the quantity demanded of a product with change in its price, while other factors are at constant, is called expansion or contraction of demand.
- **Expansion or extension of demand:** It is an increase in the demand of a commodity due to decrease in its prices, while other factors are constant.

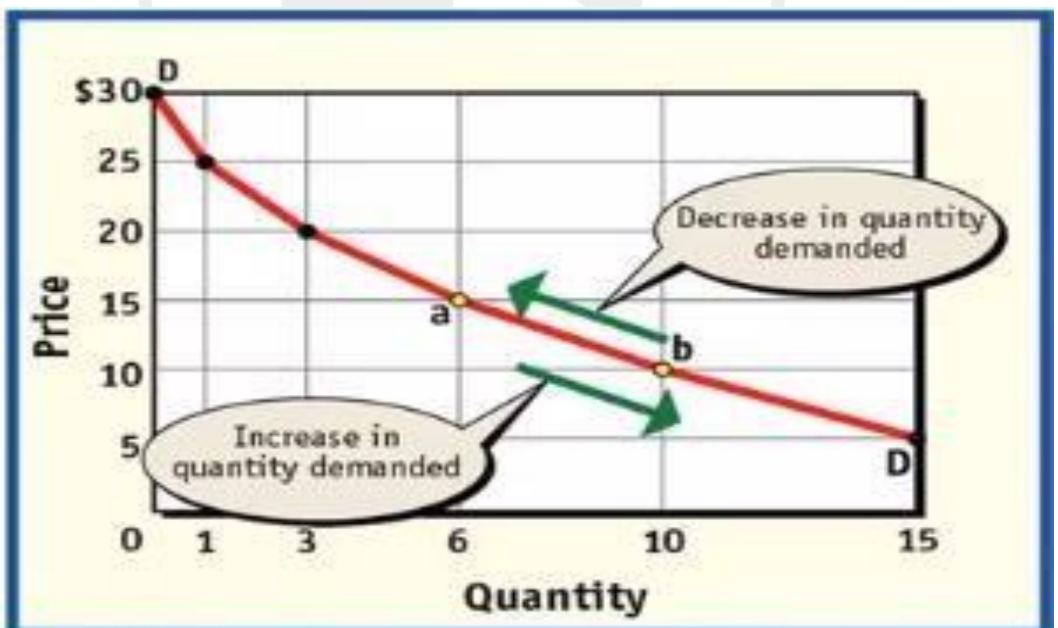
  On the Demand graph, expansion of DD curve is shifting to right side.

- **Contraction of demand:** It is a decrease in the demand of a commodity due to increase in its price, while other factors remain unchanged.

  On the Demand graph, contraction of DD curve is shifting to left side.

Movement along the demand curve

- It is an expansion or contraction in demand
- It is also called as increase or decrease in quantity demanded (as against the increase and decrease in the earlier slide)
- It occurs because of change in the price of a commodity under consideration



Quiz

The demand function for ball pens is given as DX = 1000 – 25PX
Create a demand schedule for ball pens with the prices of: Rs10, Rs 15, Rs 20, Rs 25, Rs30

Price of ball pens	Quantity demanded of ball pens

Quiz solution

- Demand function = DX = 1000 – 25PX, demand schedule will be:

Price of ball pens	Quantity demanded of ball pens
10	1000-25*10=750
15	1000-25*15=625
20	1000-25*20=500
25	1000-25*25=375
30	1000-25*30=250

Let's Sum Up

- Demand refers to the willingness or effective desire of individuals to buy a product supported by their purchasing power
- There are different types of demand – Price Demand, Income Demand, Cross Demand, Individual Demand, Market Demand, Joint Demand, Composite and Direct and Derived Demand
- There are few exceptions to the law of demand – such as Giffen Goods, Veblen Goods, Conspicuous Necessities, Consumer's ignorance, situation of crisis and future price expectations
- Change in quantity demanded can be measured by the movement along the demand curve while change in demand is measured by shifts in demand curve

Case Study

- Alan Ceranti, the managing director of fountains construction plc , is looking at the company's latest sales figures. The business has been growing rapidly over the last few years. It has found good locations in the northwest to build houses and apartment and has acquired reputation in the region. Market conditions in the last few years has been favorable and the properties were sold quickly.

- However, Alan is seriously worried by the company 's latest sales figures.
- Sales have gone down to 30% and the business is sitting on a large number on unsold finished properties.

Objective of the case Study

:

- How sensitive do you think demand for houses and apartments is likely to be in relation to change in price and Income ? Think & Explain in your words

Thank you

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