

Demand and Supply Analysis

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A. DEMAND ANALYSIS:

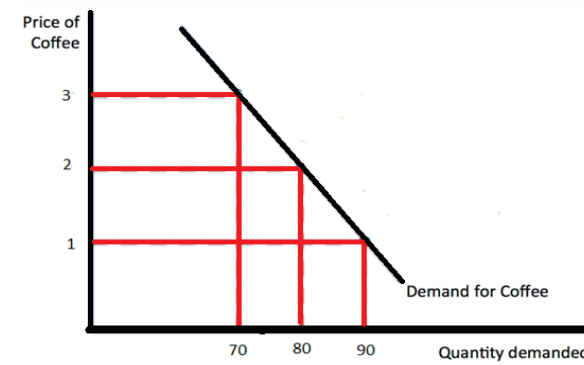
I. Concepts

- **Meaning**—Demand, DD= Desire + Ability to pay + Willingness to pay
- **Quantity demanded**- Amount of a good that buyers are willing and able to purchase at a particular period of time.
- **Demand Schedule**- a tabular representation of the relationship between quantity demanded and its determinant (here, price) other determinants remaining constant at a particular period of time.
- **Demand Curve**- a graphical representation of the relationship between quantity demanded and its determinant (here, price) other determinants remaining constant at a particular period of time.

Demand Schedule

Price of Coffee (in ₹)	Quantity Demanded ($Q_x = 100 - 10 P_x$)
1	90
2	80
3	70

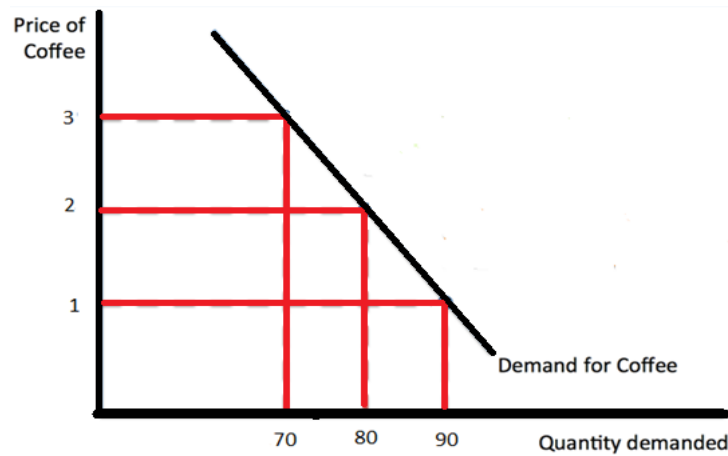
Demand Curve



II. Individual demand

- Demand of one individual consumers for the product at different possible prices at a given point of time.

Individual Demand Curve



- Individual Demand curve is **downward sloping**
- **Reason:** Income effect and substitution effect

III. Law of Demand

- According to the **Law of Demand**, there is an **inverse relationship between price and quantity demanded** for a commodity, all other factors remaining constant.

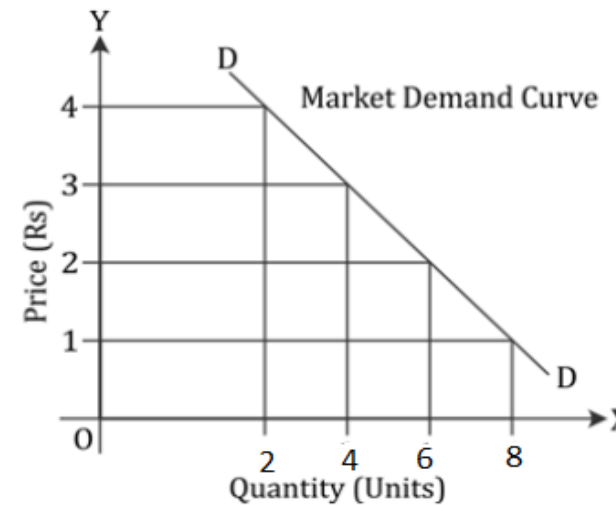
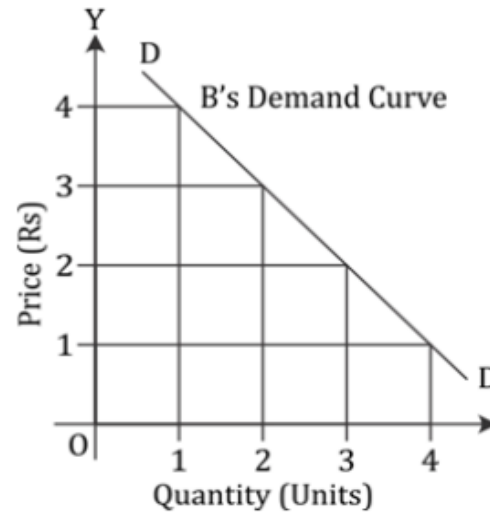
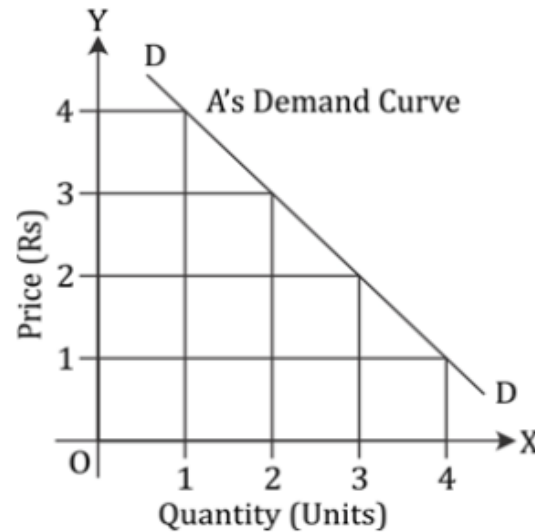
- The linear demand function is expressed as:

$$Q_x = 100 - 10 P_x$$

- The Individual demand curve and demand schedule shows inverse relationship between price and quantity demanded.

IV. Market Demand

- Sum of all the Individual demand for a commodity at different possible prices at a given point of time.
- **Market demand curve** is a horizontal summation of demand for all the consumers in the market.



- Here, assuming there are only two consumer's in the market.

Market Demand Curve = A's Demand Curve + B's Demand Curve

V. Demand Function

- Shows the functional relationship between the demand for a commodity or service and its determinants

VI. Determinants of demand

- i. Price (Px)
 - ii. Income (Y)
 - iii. Price of Related Products (Py & Pz)
 - iv. Taste and Preferences (T)
 - v. Size and distribution of Population (N)
 - vi. Consumer's Expectation (E)
 - vii. Advertisement Expenditure (A)
 - viii. Cost of Credit / Availability of Credit Facility (C)
 - ix. Government Policies (G)
 - x. Weather Conditions (W)
- Demand Function— $D_x = f(P_x, Y, P_y, P_z, T, N, E, A, C, G, W)$
 - **Linear demand function**— $D_x = a - bP_x + cY - dP_y + D P_z + eT + fN + g E + hA + gC - h G$ (Taxes)
 $+ iW$

VIII. Classification of Demand

- Direct Demand and Derived Demand
- Short-run demand and long run demand
- Individual demand and market demand
- Joint demand and Composite demand
- Company Demand and Industry Demand
- Demand for durable goods and demand for Non-durable goods

IX. Changes in Demand

- Movement along the curve—Increase and decrease in Demand
- Shift of the Curve—Expansion and Contraction in Demand

X. Exceptions to the Law of Demand

- Giffen goods
- Snob goods
- Price Expectations
- Emergencies
- Fashion/ Illustration effect
- Habit

XI. Price, Income and Substitution Effects

- Income Effect—
- Substitution Effect—
- Price Effect—

Nature of Goods	Income Effect	Substitution Effect	Price Effect
Normal Goods	Positive	Positive	Positive
Inferior	Negative (weak)	Positive (strong)	Positive
Giffen	Negative (strong)	Positive (weak)	Negative

B. SUPPLY ANALYSIS

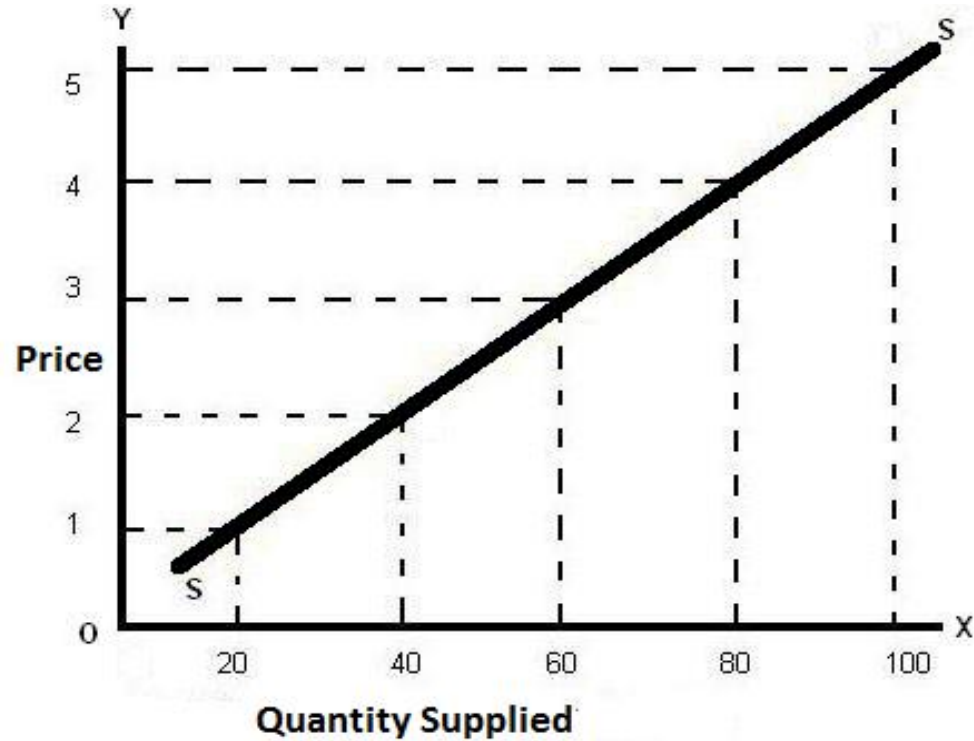
I. **Meaning**—Supply refers to various quantities of a commodity which a producer will offer for sale at a particular time at various corresponding prices.

II. **Law of Supply**—According to the Law of Supply, there is a **direct functional relationship between the quantity supplied of a commodity and its price**, other things remaining constant.

▪ **Supply Function** for price can be expressed as— $Q_{sx} = f(P_x)$

III. Individual Supply Curve and Schedule

Individual Supply Curve



- The Supply Curve **slopes upwards**

Supply Schedule

Price (₹)	Quantity Supplied
1	20
2	30
3	40
4	50
5	60

- The Individual supply curve and supply schedule shows direct relationship between price and quantity demanded.

IV. Factors Influencing Supply

- Price of the product
- Natural conditions—Weather conditions
- Technological advancement
- Availability of factors of production and their prices
- Improvement in transport
- Market structure
- Government policy

V. Exceptions to the Law of Supply

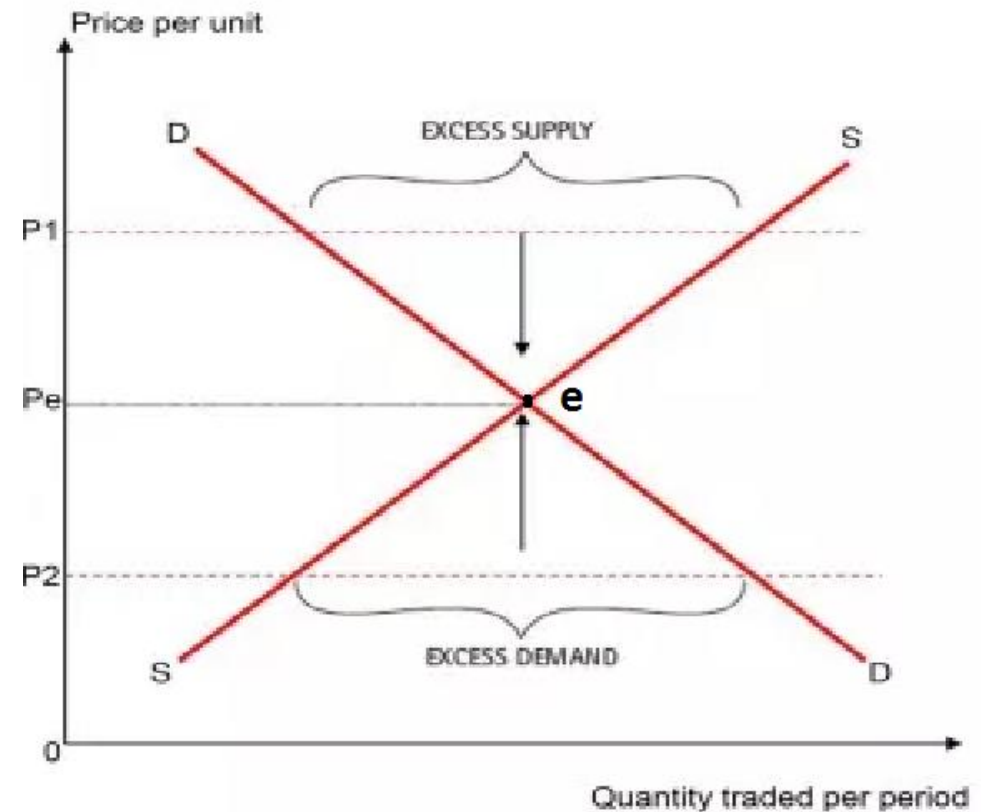
- Labour Supply
- Savings: Supply of Capital
- Exception of a Change in Price in the Intermediate Future
- Immediate Need for Cash
- Rare Collections
- Closure of Business

VI. Changes in Supply Curve

- Movement along the curve—Increase and decrease in Supply
- Shift of the Curve—Expansion and Contraction in Supply

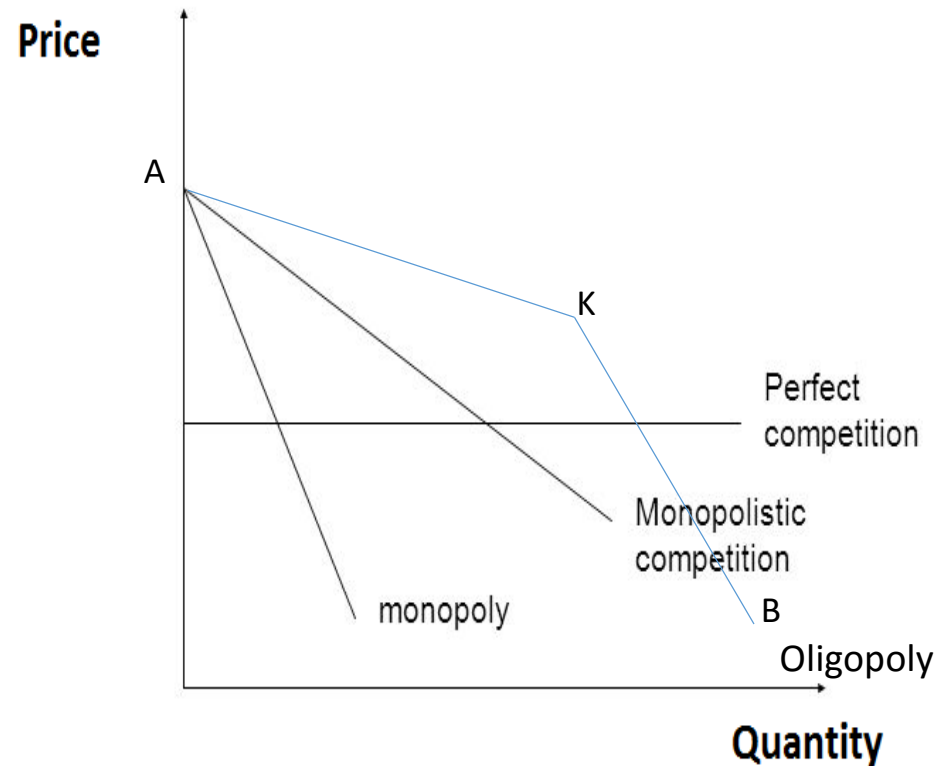
C. Market Equilibrium

- Market equilibrium (e) is attained when quantity demanded (Q_d) is equal to quantity supplied (Q_s).
- At e , $Q_d = Q_s = Q$
- P_e is the equilibrium price.
- Any price above P_e , say $P_1 \rightarrow$ Excess supply ($D < S$), **Surplus**
- Any price below P_e , say $P_2 \rightarrow$ Excess demand ($D > S$), **Shortage**.



Chapter 3: Demand Function

I. Nature of Demand Curve Under Different Market



Type	Price Elastic	Shape
1. Perfect Competition	Perfectly elastic, $e_p = \infty$	horizontal demand curve
2. Monopolistic Competition	Highly elastic, $e_p > 1$	Flatter demand curve
3. Monopoly	Less elastic, $e_p < 1$	Steeper demand curve
4. Oligopoly	Segment AK: more elastic $e_p > 1$ Segment KB: Inelastic $e_p < 1$	Kinked demand curve